Supreme Court, U. S.
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Supreme Court of the United States

October Term, 1978

No. 78-152

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY,
Petitioner,

vs.

NED. E. WILLIAMS, DIRECTOR
OHIO ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

APPENDIX

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APPENDIX A

Decision of the Ohio Supreme Court Denying Petitioner's Motion for Rehearing

(Dated May 5, 1978)

No. 78-135

THE SUPREME COURT OF THE STATE OF OHIO
THE STATE OF OHIO,
CITY OF COLUMBUS.

CLEVELAND ELECTRIC ILLUMINATING CO.,
Appellant,

vs.

NED. E. WILLIAMS, Dir.,
Appellee.

REHEARING

It is ordered by the court that rehearing in this case is denied.

APPENDIX B

Decision of the Ohio Supreme Court Dismissing Petitioner's Appeal and Denying Its Motion to Certify

(Dated April 7, 1978)

No. 78-135

THE SUPREME COURT OF OHIO
THE STATE OF OHIO,
CITY OF COLUMBUS.

CLEVELAND ELECTRIC ILLUMINATING CO.,
Appellant,

vs.

NED. E. WILLIAMS, Dir., *et al.*,
Appellees.

APPEAL FROM THE COURT OF APPEALS
FOR FRANKLIN COUNTY

This cause, here on appeal as of right from the Court of Appeals for Franklin County, was heard in the manner prescribed by law, and, no motion to dismiss such appeal having been filed, the Court sua sponte dismisses the appeal for the reason that no substantial constitutional question exists herein.

No. 78-135

THE SUPREME COURT OF THE STATE OF OHIO
THE STATE OF OHIO,
CITY OF COLUMBUS.

CLEVELAND ELECTRIC ILLUMINATING CO.,
Appellant,

vs.

NED E. WILLIAMS, Dir., *et al.*,
Appellees.

MOTION FOR AN ORDER DIRECTING
THE COURT OF APPEALS
FOR FRANKLIN COUNTY
TO CERTIFY ITS RECORD

It is ordered by the Court that this motion is overruled.

APPENDIX C

Decision of the Franklin County Court of Appeals

(Rendered December 8, 1977)

IN THE
COURT OF APPEALS OF FRANKLIN COUNTY, OHIO

CLEVELAND ELECTRIC ILLUMINATING CO., *Appellant-Appellant,*	)	
NORTHERN OHIO LUNG ASSOCIATION, *Appellant-Appellee,*	)	
v.	)	No. 76AP-929
NED E. WILLIAMS, DIRECTOR, *Appellee-Appellee.*	)	
NORTHERN OHIO LUNG ASSOCIATION, *Appellant-Appellant,*	)	
CLEVELAND ELECTRIC ILLUMINATING CO., *Appellant-Appellee,*	)	
v.	)	No. 76AP-938
NED E. WILLIAMS, DIRECTOR, *Appellee-Appellee.*	)	

DECISION

Rendered on December 8, 1977

GUREN, MERRITT, SOGG & COHEN,
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State Office Tower,
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Columbus, Ohio,
For Ned E. Williams, Director.

McCORMAC, *J.*

This case involves the control of air pollution from boilers owned and operated by the Cleveland Electric Illuminating Company (hereinafter called CEI) and the city of Cleveland at the Lakeshore Electric Generating Station, located in the metropolitan Cleveland area. In late 1972, CEI applied for variances permitting them to continue to operate their boilers in violation of applicable emission limitations. The Director of the Environmental Protection Agency (hereinafter called Director) issued proposed variances to CEI in May 1973, allowing continued operation in violation of emission limitations to July 1, 1975. In June 1973, the CEI requested adjudication hearings on the terms of the variance. In addition, certain citizens, including the Northern Ohio Lung Asso-

ciation (hereinafter called NOLA), filed objections to the applications. The Director consolidated hearings for thirteen Ohio utilities and the objectors into one hearing which commenced on March 4, 1974, nine months after the proposed variances were issued. The hearings were conducted by attorney examiners, who permitted the utilities by stipulation with the Director and over objection of NOLA to present testimony going into the issue of whether Ohio's ambient air quality standards and emission limitations were properly adopted.

The hearings were concluded on July 25, 1975, after which the hearing examiners submitted their recommendations to the Director. Objections were filed by the parties and the Director issued his determination on December 12, 1974, setting forth orders with schedules for the achievements of compliance with emission limitations for particulate pollutants. There was no order issued for compliance with the emission limitations for sulfur dioxide pollutants. Variances were neither issued nor denied.

CEI and NOLA appealed to the Environmental Board of Review in January 1975. By order of October 22, 1976, the Board held that the Director had to issue or deny variances, and that the Director could not ignore emission limitations requirements for sulfur dioxide. The Board further ordered the Director to issue within one month variances to CEI allowing violations of emission limitations for particulate pollutants and for SO_2 pollutants. However, the Board directed that the variance be effective for 36 more months after its issuance to allow compliance with SO_2 emission standards and specified that the Director's order be modified to give CEI a variance from the particulate limitations. Both CEI and NOLA have appealed to this court from the Board's order.

NOLA asserts that the Board erred in granting a variance to operate a source of air pollution in violation of applicable air pollution emission standards and regulations for a period longer than one year and for any time after April 15, 1977.

CEI asserts that the Board erred in holding that unconditional variances cannot be granted. CEI also asserts that the Board erred in holding that Ohio's particulate and sulfur dioxide standards were beyond attack in adjudication hearings, contending that the Board erred in examining the Director's regulations to determine whether they are reasonable. CEI further contends that the Board applied incorrect standards of review of the Director's actions.

The Director asserts that an adjudication hearing is not a proper forum to challenge the validity of the Director's regulations and that the Board exceeded its power in granting a variance for more than one year or for a time extending beyond April 15, 1977.

The first issue is to what extent the Director may issue or deny variances from his regulations. In this instance, the Director had promulgated ambient air regulations pertaining to particulate and SO_2 emissions. CEI sought a variance from these regulations.

R. C. 3704.03, pertaining to the powers of the Director of Environmental Protection, provides in this respect as follows:

> "The director of environmental protection may:
>
> "* * *
>
> "(H) Issue, revoke, modify, or deny variances from his regulations, including variances for emissions in excess of the applicable emission standards. In issuing, revoking, modifying, or denying such vari-

ances the director shall hear and give consideration to evidence that:

"(1) Compliance with such standards and other regulations is impractical because of conditions beyond the control of the applicant.

"(2) Compliance with such standards and other regulations would be technically infeasible or economically unreasonable.

"(3) The emissions of the applicant for which a variance is requested have little effect on ambient air quality and do not endanger or threaten to endanger human health, due to topography, direction and velocity of prevailing winds, height of emission source, or other factors.

"(4) Compliance with the standards or other regulations from which variance is sought would produce serious hardship without equal or greater benefit to the public.

"(5) The emissions of the applicant from which a variance is requested were in conformity with the emission standards in force at the time a permit was issued to the applicant under division (F) of this section.

"In issuing such variances, the director may also order the person to whom the permit is issued to furnish plans and specifications and such other information and data as the director may require, and to proceed to take such action within such time as the director may determine to be appropriate and reasonable to prevent, control, or abate his existing emissions of air contaminants. The director shall specify in such variances that the variance is conditioned upon the

right of his authorized representatives to enter upon the premises of the person to whom the variance has been issued, at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of determining compliance with this chapter, the rules adopted thereunder, and the conditions of any permit, variance, or order issued thereunder.

"The director may hold a public hearing on an application for a variance or renewal thereof, at a location in the county where the variance is sought. The director shall give not less than twenty days' notice of the hearing to the applicant by certified mail and cause at least one publication of notice in a newspaper with general circulation in the county where the variance is sought. The director shall keep available for public inspection at the principal office of the environmental protection agency a current schedule of pending applications for variances and a current schedule of pending variance hearings. The director shall make a complete stenographic record of testimony and other evidence submitted at the hearing. Within ten days after the hearing the director shall make a written determination to issue, renew, or deny the variance, and shall enter his determination and the basis therefor into the record of the hearing. The director shall issue, renew, or deny an application for a variance or renewal thereof within six months of the date upon which the director receives a complete application with all pertinent information and data required by the director.

"No variance shall be issued, revoked, modified, or denied until the director has considered the relative interests of the applicant, other persons and property

affected by the discharge, and the general public. Any variance granted pursuant to this section shall be for a period specified by the director and may be renewed from time to time on such terms and for such periods, not to exceed one year each, as the director determines to be appropriate. No application shall be denied or variance revoked or modified without a written order stating the findings upon which denial, revocation, or modification is based. A copy of the order shall be sent to the applicant or variance holder by certified mail."

To implement R. C. 3704.03(H), the Director has promulgated regulation EP-32-03, which, effective July 28, 1975, reads as follows:

"EP-32-03 *Variances.*

"(A) General Rule. No person shall cause, permit, or allow the operation or other use of any air contaminant source that emits any air pollutant in violation of any applicable law, unless a variance including an approved compliance schedule has been applied for and obtained from the Director for such source, pursuant to the provisions of this rule.

"(B) Applications for Variances

"(1) Applications for variances shall be signed by the corporate President, Vice President reporting directly to the President, or highest ranking corporate officer with offices located in the state; or by an equivalently responsible officer in the case of organizations other than corporations; or, in other cases, by the source owner or operator; or, in the case of political subdivision, the highest elected official of such subdivision. Such signature shall constitute affirmation

that the statements made in the application are true and complete, and shall subject the responsible official to liability under state laws forbidding false or misleading statements. By his signature, the responsible officer shall assume responsibility for operating and maintaining the source and control equipment in a manner designed to assure compliance with applicable law and the terms and conditions of any variances issued to such source.

"(2) Applications for variances shall be submitted to the Ohio EPA within six months of the effective date of these regulations for existing air contaminant sources not in compliance with applicable law on that date. Failure to file a timely application shall be cause for the Director to issue an order immediately prohibiting all emissions from the source.

"(3) Applications for variances shall be made in a form and manner prescribed by the Ohio EPA.

"(4) A separate application for a variance shall be made for each air contaminant source to which this rule, EP-32-03, applies.

"(5) Any variance application that fails to contain a compliance schedule or that, on its face, fails to provide the Ohio EPA with requested information needed to provide a factual basis for ascertaining compliance with each of the requirements of EP-32-03 (C)(1) may be considered defective and be treated as if it had not been filed. No hearing need be granted with respect to such improper applications, which shall be returned to the applicant without further processing with an indication of the deficiency.

"(C) Standards for Granting Variances.

"(1) No variance to operate an air contaminant source shall be granted unless:

"(a) Such source is not a new source; and

"(b) There is an approvable compliance schedule for such source. A compliance schedule shall be approvable where it shows to the satisfaction of the Director that:

"(i) The plan and schedule provide for the earliest possible compliance by the source; and

"(ii) Any available alternating operating procedures and interim control measures have reduced or will reduce the impact of such source on the public health; and,

"(iii) Good faith efforts have been and will be made to reduce emissions, or otherwise comply with any state or local laws, ordinances or regulations; and,

"(iv) The proposed control strategy will bring the source into compliance with applicable laws, rules and regulations; and,

"(v) The continued operation of the source does not endanger or threaten to endanger human health; and,

"(vi) The compliance schedule contains a date on or before which the source shall be operated in compliance with applicable law, rules and regulations.

"(2) Except as provided in Section 3704.12 of the Ohio Revised Code, no variance shall be granted from the provision of Rule AP-3-08 governing open burning.

"(D) Action on Applications for Variances.

"(1) Prior to taking any action on an application on a variance, the Ohio EPA may hold a public meeting on the proposed compliance schedule in the manner specified in the Rules of Procedure of the Ohio EPA, Chapter EP-40.

"(2) In granting, revoking, denying, or modifying any variance, the Director shall state his reasons therefor in writing. The decision and reasons therefor shall be made publicly available at the cost of reproduction and handling.

"(3) The Director shall act on an application for a variance within six months of filing a complete application.

"(4) Variances under this rule shall be issued or denied and may be challenged in accordance with the provisions of the Rules of Procedure of the Ohio EPA, Chapter EP-40.

"(E) Interim Reporting. In addition to the other registration and reporting requirements of all air contaminant sources, the holder of a variance shall file reports every two months or as required by the Ohio EPA which shall be signed by the applicant for the variance. These reports shall demonstrate, to the satisfaction of the Director that the source for which the variance was issued is making consistent progress and has met all interim deadlines specified in the compliance schedule or specified by the Ohio EPA. If the responsible official fails to file an interim report, or if such report fails to satisfy the Director that the source is making satisfactory progress, then he shall revoke the variance. The variance holder shall assume full personal responsibility for the completeness

and accuracy of statements made in the interim report. False, or misleading statements in an interim report shall be grounds for revocation of the variance, and shall subject the variance holder to the sanctions available under state laws.

"(F) Terms and Conditions

"(1) An approved compliance schedule shall be incorporated into any variance granted and shall be a term and condition thereof.

"(2) Variances shall be effective for whatever period the Director deems appropriate, not to exceed one year. A variance may be renewed only when the Ohio EPA is satisfied that the source for which the variance was granted is making satisfactory progress toward achievement of the program specified in its compliance schedule. No variance to operate an air contaminant source is an air quality control region designated as Priority I, II or III, in violation of an emission standard applicable to such region and source, shall be effective after April 15, 1977, except as provided in the following sentence. No variance to operate an air contaminant source in an air quality control region designated as Priority II or Priority III in violation of AP-3-11(B)(4) or AP-3-12(B)(5) or AP-3-14 (B)(5) shall be effective after July 1, 1978.

"(3) The possession of a variance to operate in excess of any emission standard, limitation, or regulation of the Ohio EPA shall not relieve the holder of responsibility to comply with all other applicable law and regulations of the Ohio EPA.

"(4) Any variance issued by the Director shall be subject to revision in response to changes in applicable rules and regulations or other factors affecting

the compliance of the source or control facility with the standards or conditions of the original variance.

"(5) The transferee of any variance shall, personally, assume the responsibilities of the original variance holder-transferor. The Ohio EPA must be notified in writing of any transfer of a variance.

"(6) Such air pollution emergency episode plans as are submitted and approved shall become terms and conditions of the variance and shall have full force and effect as a part thereof.

"(7) The Director may include such other terms and conditions as are necessary to ensure compliance with applicable law or to gather information about ambient air quality emissions levels, or other aspects of the source operation.

"(G) Variance No Defense to Violations. Possession of a variance relieving an air contaminant source from having immediately to comply with any requirement of applicable law shall not relieve any such source of the responsibility to comply with all other requirements of applicable law.

"(H) Revocation.

"(1) The Director shall revoke a variance if he determines that any of the terms, conditions, standards, or requirements of Sections (C), (E), or (F) of this rule have been or will be violated.

"(2) A variance that has been revoked shall forthwith be surrendered to the Ohio EPA."

The first issue is whether the regulations of the Director are inconsistent with R. C. 3704.03(H). CEI argues that they are inconsistent since the regulations absolutely

prohibit variances after April 15, 1977, thus effectively eliminating the Director's discretionary power, under R. C. 3704.03(H), to issue, revoke, modify, or deny variances only after exercising his mandatory duty to consider evidence specified in (H).

At first blush, CEI's argument appears to be valid. However, to properly interpret and apply R. C. 3704, we believe it is necessary to refer to the Federal Clean Air Act, 42 U.S.C. 1857 et seq., as the Ohio General Assembly amended R. C. Chapter 3704 in 1971 to bring it into conformity with the Federal Clean Air Act. Amended Substitute Senate Bill No. 370, providing for the Ohio's amendments, stated that the enactment "is necessary in order to comply the 1970 Amendments to the Federal Clean Air Act." 134 Laws of Ohio, page 650.

In 1970, Congress enacted the Federal Clean Air Act to compel the states to more aggressively address the pervasive problem of poor air quality. For each air pollutant primary and secondary ambient air quality standards were to be established. Section 110, 42 U.S.C. Section 1857(c)(5), required states within nine months thereafter to develop and submit to the administrator of the United States Environmental Protection Agency an "implementation plan" which shall result in attainment of primary standards within three years after approval of the plan, and attainment of more stringent secondary standards within a "reasonable time" thereafter. The expense of not submitting an approvable plan is to have the Federal Administrator promulgate federal regulations enforceable by the United States EPA against sources of air pollution in the state. As stated by the United States Supreme Court in *Train v. Natural Resources Defense Counsel* (1975), 421 U.S. 60, "a state's plan must include * * * measures that may be necessary to insure both timely obtainment and

subsequent maintenance of national ambient air standards." Thus, any state plan or portion thereof is to be interpreted consistently with the national requirement of timely attainment of ambient air standards, and with this end in mind, R. C. 3704.03 was adopted. R. C. 3704.03(d) authorizes the Director to adopt regulations "prescribing ambient air quality standards," which include prescribing emission standards for air contaminants. By R. C. 3704.03(E), the Director was granted broad authority to adopt a "plan" which insures attainment of federal and state ambient air quality standards.

Even though a state, by regulation, may lawfully authorize variances beyond a date for attainment for federal primary ambient air standards, the Supreme Court has ruled that such a regulation is lawful only insofar as such post-attainment variances do not prevent attainment or maintenance of ambient air quality standards in the area impacted by the pollution source, and only if such variance has been approved by the administrator of the United States EPA as a revision to the state plan. *Train v. Natural Resources Defense Counsel, supra.*

R. C. 3704.05(A) flatly prohibits emission of air contaminants in violation of applicable regulations unless the operator of the source has obtained a variance from such regulations, pursuant to R. C. 3704.03(H). R. C. 3704.03(H) authorizes, but does not require, the Director to issue variances from his regulations to sources of air pollution which have attained compliance with the applicable emission standard regulations. Considering the entire context of R. C. Chapter 3704. and the manner in which it was enacted, it is reasonable to interpret R. C. 3704.03(H) to prohibit issuance of a variance that is in conflict with the Federal Clean Air Act, in particular, where the variance defers compliance beyond the time established for

national enactment, or which prevents timely attainment of the air quality standards of the act.

Ambient air quality standards were originally to be obtained by July 1, 1970, but were later extended to April 15, 1975, and thereafter extended to April 15, 1977. The regulation adopted by the Director places the Ohio act in compliance with the national standards giving rise to adoption of the law in Ohio. Thus, the regulation of the Board prohibiting any variances beyond April 15, 1977, is lawful in accordance with the mandates of Ohio law, as set forth in R. C. 3704.03, which was promulgated for the purpose of achieving and maintaining compliance with national ambient air quality standards. The regulation is not in conflict with the enabling statute and is not unreasonable on its face, nor has there been a showing that the regulation pertaining to variances has not been properly formulated. Thus, the regulation must be applied until properly amended or repealed. See *Kroger Grocery & Baker Co. v. Glander* (1948), 149 Ohio St. 120.

The action of the Board in ordering a variance for ambient air quality standards to extend for a period longer than one year or for any time after April 15, 1977, is contrary to law and erroneous.

Although the question is now moot, since it is after April 15, 1977, and no further variances are lawful, the Director acted within the authority of R. C. 3704.03 and his regulations in attaching conditions to an application for a variance and in requiring a compliance schedule therewith. R. C. 3704.03(H) specifically refers to conditions of a variance.

The fact that a variance is denied or is not in force, either for particulate or SO_2 emissions, does not leave CEI or the Director without other remedies that are fair

and equitable to CEI or to the public. It does not mean that CEI must be immediately shut down, even if in violation of applicable ambient air quality standards. The Director is given discretionary enforcement options and need not request that an injunction be brought pursuant to R. C. 3704.06, even though there is a violation of his regulations. Nor is the Attorney General required to proceed with a prosecution, resulting in a penalty pursuant to R. C. 3704.99. The Director, however, is given a great deal more effective enforcement weapon by a holding that no further variance is possible, which means that the operator is acting illegally if the emission from his plant exceeds the applicable air quality regulations. More prompt and effective measures can be taken for enforcement under penalty of severe monetary fines or threat of shut down to achieve, at the earliest possible time, attainment of properly adopted air quality standards.

NOLA's four assignments of error are sustained.

The next issue is whether the Board may amend the Director's regulations or establish new regulations in an appeal from an adjudication hearing in relation to an application for a variance from those regulations. The Director contends that a challenge to an administrative regulation is beyond the scope of an adjudication hearing. We agree with the Director in this respect.

Persons adversely affected by the promulgation of a regulation by the Director may appeal to the Board, pursuant to R. C. 3745.04. Since, in that situation, no adjudicatory hearing has been conducted by the Director, but, rather, a legislative proceeding; the hearing before the Board is *de novo* pursuant to R. C. 3745.05. In this case, no appeal was taken to the Board from the Director's promulgation of particulate and SO_2 regulations. On the

other hand, CEI and other utilities sought a variance from the regulations. The Director's hearing was adjudicatory or quasi-judicial, rather than rulemaking or quasi-legislative. An appeal then was taken to the Board from the Director's ruling on the application for variances.

In the variance hearing, evidence may be adduced by the parties concerning the unreasonableness of the standards or regulations as applied to the applicants, as set forth in R. C. 3704.03(H). However, the adjudication hearing, upon the application for a variance, cannot be used as a vehicle for amendment or revision of the regulations or for the purpose of establishing new regulations. Moreover, the Board cannot use the appeal from the variance order of the Director to adopt new rules or regulations, or to modify the rules and regulations adopted by the Director. The regulations are not so subject to attack in a variance proceeding either before the Director or on appeal therefrom to the Board. Regulations may be adopted, modified or amended only in a quasi-legislative or rulemaking proceeding.

CEI sought variances on the basis that they would be unable to attain compliance with the emission regulations within the time prescribed in the regulations, and further contended that the emission regulations were unreasonable, unlawful and, in some cases, unnecessary.

An issue posed by the appeal of CEI is whether the sulfur dioxide or particulate regulations are subject to challenge in the variance proceeding, which is adjudicatory in nature. The Director held and the Board concurred that the regulations were not so subject to challenge. The Board further held that the Director's order requiring compliance with particulate emission standards by April 15, 1977, is reasonable and lawful. We agree with that holding.

As to sulfur dioxide standards, all parties apparently agree that the regulations adopted by the Board are out of date and should no longer be applicable to Ohio industries and that new sulfur dioxide regulations need to be adopted. However, as previously stated, administrative regulations cannot be attacked in an adjudicatory hearing. R. C. 119.11, which is relied upon by CEI, has been repealed effective September 30, 1976, following holdings of unconstitutionality by the Supreme Court. *Fortner v. Thomas* (1970), 22 Ohio St. 2d 13.

Thus, the Director should promptly promulgate sulfur dioxide regulations that are reasonable, rather than leaving in effect unenforceable standards that will be, as a practical matter, subject to successful challenge in adjudicatory proceedings although not subject to modification or amendment by that method.

CEI's first assignment of error is overruled.

CEI's fourth and fifth assignments of error are also overruled. The issue of a compliance schedule is now moot as no further variance can be granted after April 15, 1977. Moreover, the Director is required to follow his regulations, which require a compliance schedule to be submitted with an application for a variance.

CEI's second, third and sixth assignments of error are sustained. The Board did improperly substitute its judgment for the Director. Furthermore, it failed to confine its hearing to the record as certified by the Director, as required by R. C. 3745.05, since an adjudication hearing had been conducted by the Director. The Board was a reviewing body in the appeal herein and not a *de novo* fact finder. Its function was to determine whether the Director's order was lawful and reasonable.

NOLA's four assignments of error are sustained. A variance to operate a source of air pollution in violation of applicable emission standards can be for a period of time not to exceed one year, and in no instance can extend beyond April 15, 1977. CEI's first, fourth and fifth assignments of error are overruled, and its second, third and sixth assignments of error are sustained.

The order of the Board is reversed, and the case is remanded to the Board for further procedure consistent with this decision.

STRAUSBAUGH, *P.J.*, and HOLMES, *J.*, concur.

APPENDIX D

Decision of the Ohio Environmental Board of Review

(Issued October 22, 1976)

Case No. EBR 75-7

BEFORE THE ENVIRONMENTAL BOARD OF REVIEW
STATE OF OHIO

NORTHERN OHIO LUNG ASSOCIATION

and

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
Appellants,

v.

NED E. WILLIAMS, DIRECTOR OF ENVIRONMENTAL PROTECTION
Appellee.

FINDINGS OF FACT AND FINAL ORDER

I.

On January 13, 1975 several appeals were filed with the Environmental Board of Review concerning the Findings and Orders of the Director of Environmental Protection which were issued on December 12, 1974. Prior to addressing the appeal before this Board a brief description of the proceedings before the Director and his resulting order are appropriate. The Director's Order concerned numerous stationary sources owned by various electric power companies.

The proceeding below resulting in the Director's December 12, 1974 Order was an adjudication hearing held in response to the applications filed by the various utility companies for an adjudication hearing to contest certain conditions imposed by the Director in the variances and operating permits issued to the utilities in May of 1973. In addition to thirteen utilities, four citizens filed objections to the Director's Order pursuant Section 3745.07 of the Revised Code. Among these citizens were Mrs. Patricia Smith representing the Air Conservation Committee of the Northern Ohio Lung Association who objected to variances issued CEI and the City of Cleveland. The hearings in this consolidated proceeding commenced on March 4, 1974, and concluded on July 25, 1974. The transcript of the testimony is contained in approximately 7,000 pages. And there was submitted another several thousand pages of exhibits and briefs by the various parties. These hearings were presided over by a panel of three hearing examiners who issued their report and recommendations on September 6, 1974.

The issues raised by the utility applicants at the hearings were: (1) whether or not Ohio's ambient air quality standards and emissions regulations take into account considerations such as health effects, dispersion of pollutants, and other considerations mandated by state and federal law; (2) whether or not the measured ambient sulfur dioxide levels indicate a need for emission control in many parts of the states; (3) whether or not flue gas desulfurization systems have been adequately demonstrated; (4) whether or not sufficient quantities of limestone are available to permit widespread operation of flue gas desulfurization systems; (5) whether or not sludge disposal makes flue gas desulfurization systems unreasonable and environmentally unsound; and (6) whether or not tall stacks

are a reasonable means of achieving compliance with state and federal air pollution control statutes. The Hearing Panel included in its approximately 420-page report findings of fact and conclusions of law. The following recommendations were also given:

1. The Hearing Panel recommends that the Director adopt the present Federal primary annual average and twenty-four hour maximum ambient air quality standards for sulfur dioxide and particulate matter and repeal Ohio's existing ambient standards for those pollutants.

2. The Hearing Panel recommends that the Director adopt a county by county classification and realistic emission limitations upon emissions of sulfur dioxide and particulate matter based upon accurate ambient data for each county and the most sophisticated diffusion modeling techniques presently available. Existing priority classifications and emission regulations for these pollutants should be repealed.

3. The Hearing Panel recommends that Regulation AP-7-06 be repealed.

4. The Hearing Panel recommends that the Director repeal Regulation EP-10-06 and adopt a new regulation clearly expressing the means for attaining the objectives which the present regulation seeks to attain.

5. Recommendations 1-4 should be implemented through utilization of ORC Chapter 119 rule-making procedures.

6. The Hearing Panel recommends that no compliance orders be issued as a result of this proceeding until Recommendations 1-4 have been implemented.

7. In the event that the Director should determine that installation of FGD systems appears necessary at any plant involved herein, the Hearing Panel recommends that the Director obtain information regarding the Bruce Mansfield and NIPSCO scrubber systems in 1976 before issuing the draft order attached hereto.

8. In the event that the Director determines that particulate control measures must be implemented now, the Hearing Panel recommends issuance of the draft order attached hereto.

The Director issued on December 12, 1974, "Findings and Orders" which consisted of four parts plus another fifth part captioned "Orders". The first part dealt with the history of the case. The second part was concerned with whether or not there was an adequate demonstration of control technology; included in this part is a discussion of the criteria the Director used to ascertain whether or not there is adequate control technology and also given is the bases for these criteria. Part Two of the Director's "Findings and Orders" also contains the rejection of what is called a conclusion of law, No. 15 in the Hearing Panel's report (Director's Record, Item 3, at 410). This conclusion states:

> 15. Flue gas desulfurization is not a presently available, technologically feasible method of SO_2 control which may be employed by the Ohio electric utilities.

The Director also rejected the Hearing Panel's Recommendation 7 which is given above. Part Three of the Director's Order contains a discussion of the Director's conception of the scope of the adjudication hearings, a discussion of the applicability of certain of his regulations

and a statement that Recommendation 8 of the Hearing Panel is accepted in general terms. Part Four contains a lengthy argument with several citations from case law and statutes supporting the proposition that the Director must enforce the regulations for particulate emission limitations. The last portion of the Director's "Findings and Orders" entitled ORDER will be discussed in Section VII.

II.

Appeals from the Director's Order were filed before this Board by the Northern Ohio Lung Association concerning the Cleveland Electric Illuminating Company and the City of Cleveland, Division of Light and Power. (Case Numbers 73AP-120 and 73-A-V-127 respectively). Appeals were also brought by the Cleveland Electric Illuminating Company, Buckeye Power, Inc., the Cincinnati Gas & Electric Company, Columbus and Southern Ohio Electric Company, Dayton Power and Light Company, Ohio Edison Company, Ohio Power Company, Ohio Valley Electric Corporation and the Toledo Edison Company (Case No. EBR 75-5), by the City of Painesville (Case No. EBR 75-3), and by East Palestine Light and Power Company and Dover Municipal Power Plant (Case No. EBR 75-6). Since there was one Record of Proceedings out of which all of these appeals arose and since the Cleveland Electric Illuminating Company was named Appellant in one case and Appellee in another case, the Board pursuant to Regulation EBR-§3-22 ordered the cases consolidated into one appeal, Case No. EBR 75-3-5-6-7.

The Board received the following motions for voluntary dismissal: on March 25, 1975 from Appellant, Dover Municipal Power Plant (Board's Record Item UU); on April 2, 1975 from Appellant, Columbus and Southern Ohio Electric Company referring to 73-AV-137 (Picway Gener-

ating Station), 73-AV-138 (Conesville Generating Station), and 73-AV-139 (Poston Generating Station) (Board's Record Item VV); on April 3, 1975 from Buckeye Power, Inc., The Cincinnati Gas and Electric Company, Dayton Power and Light Company, Ohio Power Company, Ohio Valley Electric Corporation, and the Toledo Edison Company, and the Cleveland Electric Illuminating referring to 73-AV-146 (Ashtabula Plant), 73-AV-147 (Avon Lake Plant) and 73-AV-148 (Eastlake Plant) (Board's Record, Item ZZ); on April 11, 1975 from the City of Painesville (Board's Record Item RRR). The Board pursuant to EBR-§3-24 granted the above motions for voluntary dismissal with prejudice, (Board's Record, Items YY, QQQ and TTT).

Both the City of Cleveland and the Cleveland Electric Illuminating Company, named party-Appellees by the Northern Ohio Lung Association, moved to be dismissed stating as their grounds for dismissal that they did not substantially support the Director of Environmental Protection (Board's Record, Items C and NN). Section 3745.04 of the Revised Code states that "[t]he person so appealing to the Board shall be known as Appellant, and the Director and any party to a proceeding substantially supporting the findings from which the appeal is taken shall be known as Appellee . . .". Finding that the City of Cleveland and the Cleveland Electric Illuminating Company did not support the Director, the Board ordered that these two parties be dismissed as party-Appellees, (Board's Record, Items QQQ and SSS). Thus, the remaining parties-Appellants to the consolidated appeal are Northern Ohio Lung Association (hereinafter NOLA), Cleveland Electric Illuminating Company with regard to its Lake Shore Plant (hereinafter CEI) and Ohio Edison. The Board separated Ohio Edison's appeal (Case No. EBR 75-5) from the consolidated case on August 31, 1976 because there were hearings

to be had concerning the Ohio Edison appeal which did not concern the CEI and NOLA appeal.

When giving consideration to the assignments of error presented by NOLA it is appropriate to note that although the City of Cleveland did dismiss itself as an Appellee, that portion of the Director's Order of December 12, 1974, which deals with City of Cleveland, Division of Light Power, Case No. 73-AV-127 had been timely appealed to the Board by NOLA. In the City's motion to be dismissed it is stated that:

> The essence of the appeal by the Northern Ohio Lung questions the duties and discretion of the Director. In no manner whatsoever does the City of Cleveland have an interest in this matter as an Appellee. The Appellant here states that he has been aggrieved by the actions of the Director. No reference is made of any aggravation caused by the City of Cleveland, and the Appellant's notice of appeal is devoid of any reason which would necessitate this Board in joining the City of Cleveland as a party Appellee.

However, as NOLA has pointed out in its statement of clarification as to the City of Cleveland (Board's Record, Item AAAAAA), ". . . the City cannot be relieved from the legal requirements of this Board's ruling, or the Director's Order, merely by not participating in the appeal of an order relating to its authority to operate its boilers." In other words, the Board can at this time rule whether or not the Director's order concerning the City of Cleveland's plant is lawful and reasonable. Although CEI was dismissed as an Appellant, the Board's ruling with respect to NOLA's assignment of error will affect the CEI plant as well as the City of Cleveland plant.

Looking again to the Director's Order, with respect to CEI's Lake Shore Plant, the order states:

> Pursuant to Chapters 119 and 3704(S) of the Ohio Revised Code the Director makes the following orders:
>
> . . .
>
> (A) By April 15, 1975, submit a program and schedule for compliance with the particulate regulations of Chapter AP-3 that demonstrates compliance as quickly as possible and before April 15, 1977.
>
> (B) By June 15, 1975, submit signed contracts for the purchase and delivery as quickly as possible of all necessary control equipment for those sources needing control equipment under the programs and schedules submitted under the requirement of paragraph (2) above.
>
> (C) By April 15, 1977, attain final compliance with all particulate regulations of Chapter AP-3 of the Regulations of the Ohio Environmental Protection Agency. (Director's Record, Item 2 at 33)

As to the control of sulfur oxide emissions which may be applicable to the Lake Shore Plant of CEI and the City of Cleveland plant the Director stated that because there is an absence of ambient air quality data in the record showing widespread and serious violations of the ambient air quality standards for sulfur oxides, the applicants have shown unreasonableness in the application of the regulations. Until new ambient air quality data is collected and analyzed showing violations of the regulations by these sources, the Director said he will not require the Electric

Utility Companies to implement sulfur oxide control. (See Director's Record, Item 2 at 21)

III

As mentioned above, the object of both CEI's and NOLA's appeals is the Director's order of December 12, 1974. There are three assignments of error listed in NOLA's Notice of Appeal (Board's Record, Item 75-7(A));

(1) The Director failed to issue orders or a variance with a compliance schedule for the sources in question which would result in attaining the degree of reduction of sulfur oxide emissions required by applicable law;

(2) The action of the Director was not supported by reliable probative and substantial evidence and is unreasonable; and

(3) The action of the Director was not in accordance with state and federal law.

The utilities, including CEI, filed a Joint Notice of Appeal which presented fourteen assignments of error. (Board's Record, Item 75-5(A)). These assignments of error, as they apply to CEI may be broken down into four categories: (1) The Director acted arbitrarily, unreasonably, in violation of Regulation EO-40-26 and Sec. 119.09 of the Revised Code, and otherwise unlawfully by failing to include findings of fact and conclusions of law and the reasons therefore with respect to all the hearing examiner's findings, conclusions and recommendations which were rejected; (2) the Director erred and acted arbitrarily, unreasonably and unlawfully in rejecting the hearing examiner's recommendation for the rescission and amendment of AP-3-02 (prescribing emission limitations for sulfur dioxide), and the Director erred and acted arbi-

trarily, unreasonably and unlawfully by issuing orders requiring compliance with the particulate emission limitations prescribed by AP-3-11 prior to the rescission and amendment of said regulation; (3) the Director acted arbitrarily, unreasonably and in violation of Section 3704.03 (H) of the Ohio Revised Code by failing to issue CEI an appropriate variance from the sulfur oxide emission regulations based on the record and the hearing examiner's findings and conclusions; and (4) the Director acted arbitrarily, unreasonably, and in violation of Section 3704.03 (S) and otherwise unlawfully in issuing compliance orders with respect to Regulation AP-3-11 and in failing to issue appropriate variances therefrom. (See also Board's Record, Items MM and AAAA).

CEI stated, that while not wishing to waive the issues raised in the Joint Notice of Appeal or raised both in the hearings and briefs before the Director, that it wished to address the following issues:

1. Whether, in the light of the extensive evidence in the record supporting the Hearing Panel's findings and recommendations for revision of the State's sulfur oxide and particulate ambient air quality standards and emission limitations, it is lawful or reasonable for the Director to fail to initiate appropriate and proper rulemaking to revise said standards and limitations consistent with the overwhelming evidence in the record.

2. Whether, in view of the extensive evidence demonstrating compliance with the criteria of Section 3704.03(H), it is lawful or reasonable to fail to issue to The Illuminating Company appropriate unconditional variances from the sulfur oxide emission regulations.

3. Whether, in light of the extensive evidence supporting the Hearing Panel's recommendation that the particulate emission regulations should be repealed, it is reasonable or lawful to require compliance with the particulate emission regulations by April 15, 1977.

4. Whether, in light of the extensive evidence of the record warranting and mandating issuance of variances from the particulate emission regulations, it is lawful or reasonable to refuse to issue to The Illuminating Company appropriate variances therefrom and compliance orders with respect thereto. (Board's Record, Item MM)

IV

The proceeding before the Board was a record hearing. During the proceedings before the Board, CEI had argued that the Director violated, *inter alia*, Section 119.09 of the Revised Code and therefore the Director's Order should be vacated and remanded ". . . for his expeditious findings of fact and conclusions of law preparatory to issuance of final orders in accordance with law on Appellants' variance applications, including those of The Cleveland Electric Illuminating Company for the Lake Shore Plant." (Board's Record, Item AAAA at 2). The Board conducted a hearing concerning the issue of whether or not the Director complied with Section 119.09 of the Revised Code and the possible consequence of his alleged noncompliance. (Board's Record, Item CCCC).

The compliance with Section 119.09 of the Revised Code by the Director can, by law, determine whether or not the hearing to be held before the Board is to be *de novo*.

Section 3745.05 of the Revised Code states in pertinent part:

> In hearing the appeal, if an adjudication hearing was conducted by the director of environmental protection in accordance with sections 119.09 and 119.10 of the Revised Code, the board is confined to the record as certified to it by the director. The board may grant a request for the admission of additional evidence when satisfied that such additional evidence is newly discovered and could not with reasonable diligence have been ascertained prior to the hearing before the director. If no adjudication hearing was conducted in accordance with sections 119.09 and 119.10 of the Revised Code, the board shall conduct a hearing de novo on the appeal.

To be noted in the above portion of the statute is the emphasis upon the requirement that the hearing must be in accordance with Section 119.19 of the Revised Code. Section 119.09 of the Revised Code, provides that for the purpose of conducting an adjudication hearing an agency may require the attendance of witnesses and the production of documents, it may take depositions of witnesses, can upon the request of a party who must be given timely lawful notice according to section 119.06 and 119.07 O.R.C., issue subpoenas; and agency may postpone or continue the hearing and during the adjudication hearing, if the record may be the basis of an appeal to court, a stenographic record of the hearing shall be made. Section 119.09 of the Revised Code also allows the appointment of a hearing examiner to conduct the hearing and to prepare a report which contains findings of fact, conclusions of law and recommendations; a copy of the written report and recommendation is to be served upon the parties, if the agency does not accept the recommendations, the reasons for such nonacceptance must be included in the record of proceedings. In the present context, the two most important aspects of Section 119.09 of the Revised Code are the requirement for a hearing with proper notice, with the opportunity to be heard and the requirement that the agency enter into the record of proceedings the reasons for rejecting the hearing examiner's recommendations. It is evident on the face of Section 3745.05 of the Ohio Revised Code that only those aspects of Section 119.09 dealing with the attributes of a lawful adjudication hearing; notice and opportunity to be heard, are determinative as to whether or not the Board is confined to the record as certified to it by the Director. Based on the evidence and record before the Board, it is the opinion of the Board that the present proceedings are confined to the record certified by the Director and such additional evidence which the Board may have allowed under Section 3745.05.

V

The three assignments of error given by NOLA in its Notice of Appeal are interrelated and have been combined in the quotation from their brief given below.

> The Northern Ohio Lung Association submits the following Assignment of Error for review by the Board:
>
> The Director of Environmental Protection erred in failing to apply Regulation AP-3-14 which provides sulfur dioxide emission standards to the utilities' fuel burning equipment and in permitting continued operation of such equipment without compliance with said Regulation, and, therefore, his action is unlawful and should be modified by the Board. (Board's Record, Item SS).

There is no doubt that the order of December 12, 1974, does not call for the application of Regulation AP-3-14. The Director stated in his Order as follows:

In most cases, the evidence presented by the Joint Applicants and the discussion of it by the Hearing Examiners is quite complete as to the application of sulfur oxides emissions limitations to particular facilities. Because there is an absence of ambient air quality data in the record showing widespread and serious violations of the ambient air quality standards for sulfur oxides, the requirement that applicants must show unreasonableness in the specific application of regulations has been met. Until new ambient air quality data is collected and analyzed showing violations of the regulations by these sources, it is inappropriate to require use of sulfur oxide control by these sources. Thus, for the above reasons, the Director will not require the Electric Utility Companies to implement sulfur oxide control. (Director's Record, Item 2 at 21)

NOLA's contention was that ". . . [u]nless the rule is unreasonable on its face or in clear conflict with the enabling statutes, the agency must apply it as formulated until it is properly amended or repealed. *The Kroger Grocery & Bakery Co. v. Glander, . . .*" 149 Ohio St. 120, 77 N.E.2d 921, 924 (1948). Therefore, in order to deal the assignment of error presented by NOLA, it is necessary to examine the record to ascertain if the regulations in question conform with the above conditions.

It is to be noted that there are two types of regulations which are explicitly concerned with sulfur dioxide (hereinafter SO_2). The first type of regulation dealing with SO_2 is that which sets ambient air quality standards, Regulation AP-3-02. The second type of regulation which explicitly refers to SO_2 are emission standards, Regulations AP-3-13 and AP-3-14. The Board will be concerned only with the latter of these two regulations insofar as Regulation AP-3-14 controls the emission of SO_2 from the fuel-burning facilities of CEI and the City of Cleveland. The

phrase "ambient air" means the air that is outside—the air which surrounds the buildings and people—but does not refer to air inside buildings or other structures. To be distinguished from ambient air standards are emission standards which set the allowable rates at which a given source may emit pollutants into the air. The emission standard is most often stated in terms of a quantity per unit time. For example, Regulation AP-3-14, is written such that when the capacity of the fuel-burning source is taken into account, only a certain number of pounds of sulfur dioxide per hour may be emitted.

Regulation AP-3-02 states in pertinent part:

> (B) Ambient air quality standards for sulfur dioxide applicable throughout the area shall be as follows:
>
> (1) The maximum annual arithmetic mean concentration shall not exceed sixty (60) micrograms per cubic meter (0.02 parts per million by volume).
>
> (2) The maximum twenty-four (24) hour concentration not to be exceeded more than once per year shall be two hundred and sixty (260) micrograms per cubic meter (0.10 parts per million by volume).
>
> (Adopted January 28, 1972; effective February 15, 1972).

The term "area" in the above regulation means the State of Ohio as defined in Regulation AP-2-01(I).

Prior to the adoption of the regulation in the above form by the Air Pollution Control Board on the date indicated, the Air Pollution Control Board had adopted a much more stringent standard of the maximum annual arithmetic mean concentration which would not exceed forty (4) micrograms per cubic meter. The corresponding federal ambient air quality standards is eighty micrograms

per cubic meter. Thus it is evident that the present state standard are a compromise between the much more stringent standards originally adopted and those adopted by the federal EPA. That there were rational and lawful reasons for the state to adopt more stringent standards than those adopted by the federal EPA can be shown by the following analysis.

The Director, and the Air Pollution Control Board before him, were obligated to comply with the Federal Clean Air Act Amendments of 1970 because Senate Bill 370 which became effective December 23, 1971, and which amended Chapter 3704 of the Ohio Revised Code, stated in part:

> SECTION 4. This act is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health, and safety. The reason for such necessity lies in the fact that immediate action is necessary in order to comply with the 1970 amendments to the Federal Clean Air Act.

Therefore this act shall go into immediate effect. Among the various provisions of the Federal Act is Section 109 which provides for the adoption of national ambient air quality standards and Section 116 which provides the power for the states to adopt *more stringent* ambient air quality standards and emission standards than those adopted by the Administrator of the U.S. EPA. Section 109 of the Clean Air Act states in pertinent part:

> SEC. 109. (a)(1) The Administrator—
>
> (A) within 30 days after the date of enactment of the Clean Air Amendments of 1970, shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date of enactment; and

> (B) after a reasonable time for interested persons to submit written comments . . . shall by regulation promulgate such proposed national primary and secondary ambient air quality standards with such modifications as he deems appropriate.
>
> . . .
>
> (b)(1) National primary ambient air quality standards, prescribed under subsection (a) shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health. Such primary standards may be revised in the same manner as promulgated.

The important point in this statute is that the ambient air quality standards are to be ". . . based on such criteria and allowing an adequate margin of safety . . ." and ". . . are requisite to protect the public health."

The Criteria Document referred to above is authorized by Section 108(a) of the Clean Air Act which says in part:

> . . . The criteria for an air pollutant, to the extent practicable, shall include information on—
>
> (A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;
>
> (B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and
>
> (C) any known or anticipated adverse effects on welfare.

The Federal Criteria Document for SO_2 concluded with the following summary or resume:

> In addition to health considerations, the economic and aesthetic benefits to be obtained from low ambient concentrations of sulfur oxides as related to visibility, soiling, corrosion, and other effects should be considered by organizations responsible for promulgating ambient air quality standards. Under the conditions prevailing in areas where the studies were conducted, adverse health effects were noted when 24-hour average levels of sulfur dioxide exceeded 300 ug/m³ (0.11 ppm) for 3 to 4 days. Adverse health effects were also noted when the annual mean level of sulfur dioxide exceeded 115 ug/m³ (0.04 ppm). Visibility reduction to about 5 miles was observed at 285 ug/m³ (0.10 ppm); adverse effects on materials were observed at an annual mean of 345 ug/m³ (0.12 ppm); and adverse effects on vegetation were observed at an annual mean of 85 ug/m³ (0.03 ppm). It is reasonable and prudent to conclude that, when promulgating ambient air quality standards, consideration should be given to requirements for margins of safety which would take into account long-term effects on health, vegetation, and materials occurring below the above levels. (*Air Quality Criteria for Sulfur Oxides*, February, 1969, National Air Pollution Control Administration, at 10-22)

(ug/m³ means micrograms per cubic meter, ppm means parts per million.) The following table summarizes in numerical fashion a comparison between the data given in the criteria document and the state and federal standards. The table also indicates the margin of safety, if any, both in terms of absolute values and percentages.

SEE TABLE ATTACHED

A COMPARISON OF THE AIR QUALITY CRITERIA FOR SULFUR OXIDES SUMMARY WITH THE STATE AND FEDERAL STANDARDS AND CORRESPONDING MARGINS OF SAFETY, IN MICROGRAM PER CUBIC METER.

24 Hour Standards

Criteria Document Summary	Federal Standard	Margin of Safety	State Standard	Margin of Safety
(a)	(b)		(c)	
300	365	?	260	40/13%

ANNUAL AVERAGE

Criteria Document Summary	Federal Standard	Margin of Safety	State Standard	Margin of Safety
115	80	35/30%	60	55/48%

(a) These values were taken from the Résumé of the Air Quality Criteria for Sulfur Oxides (February, 1969) National Air Pollution Control Administration at 10-22 and these values pertain only to health effects and not to the lower values where visibility is reduced or adverse effects on vegetation occur.

(b) 40 C.F.R. §50.4.

(c) Ohio EPA Regulation AP-3-02.

The quotation from the Criteria Document and the table above clearly show that the promulgation of the state standards was both lawful and reasonable within the context of the federal law. In fact, it can be argued that the requirement of a margin of safety is fulfilled by the state standards but is not fulfilled by the federal standards.

Developments since the promulgation of the state ambient air standards have not detracted from the basis of these standards but rather have tended to bolster them. From a legal basis, the United States Supreme Court has ruled that on the basis of Section 116 of the Clean Air Act that the States may promulgate more stringent standards than the federal standards. *Union Electric Company v. EPA*, 96 Sup. Ct. 2518, 2528 (1976). Also, the evidence presented before the Hearing Panel by the Director supports the reasonableness of the judgment of the Ohio Air Pollution Control Board in promulgating state standards with larger margins of safety than those associated with the federal standards. Some examples of this evidence are as follows. Dr. Stephen Ayres, Physician-in-Chief at St. Vincent Hospital in Worchester, Massachusetts, and Professor of Medicine at the University of Massachusetts School of Medicine, testified that a study done in Barberton, Ohio, indicated that sulfur oxide levels between 70 to 100 micrograms per cubic meter on an annual basis resulted in adverse health effects for children. (Transcript of the hearing before the Hearing Panel at 5989, 5990). (The transcript before the Hearing Panel will hereinafter be denoted as Tr.) Dr. Ayres was asked if he agreed with the conclusion in OEPA Exhibit 14 at 8, that, "A present knowledge of health effects appears to afford no compelling basis for suggestions to either raise or lower the current mandated primary air quality standards at this time." Dr. Ayres' answer was:

> Not only do I agree, it is the opinions expressed by the National Academy of Science are very similar to previously held opinions of my own and confirm the opinions of other respected scientists that I have conversed with. I would like to emphasize that they said in their report that there is no compelling basis to lower the standards at the present time. I think it is very important to stress, because we really do not know if the level of 80 micrograms per cubic meter is an adequately safe standard. I have some reservations personally and would feel that perhaps additional work will suggest the standards should be somewhat lower, but I think in their report they handle that by the phrase "at this time". (Tr. 6022)

Dr. Ayres also testified concerning the nature of a margin of safety:

By Mr. Fielding:

Q. Dr. Ayres, I wonder if you could define for us what a margin of safety is and what the necessity for setting margins of safety are for toxic compounds?

A. I mentioned this morning some of the uncertainties which have to do with the uncertainty of the type of effect and the uncertainty of the technique of monitoring and also the various new human responses. For this reason, a safety factor is just that.

Now, let me demonstrate it by an example. There are many of us that think that 100 micrograms per cubic meter is not really a no-effect point, but it is a point where effects have been clearly demonstrated above.

Now, we have to, if we accept the fact that 100 is a bad spot, we have to pick some level below that as a standard. One of the problems is that that value

of 100 is an average kind of value with its own variation, if you will. It is a mean observation with a standard deviation and some variability, so even though we pick 80, we have to accept the fact that there will be certain situations in which some people will be harmed by a lower level, say 60 or 70 or 50, so it is basically a best view of the current data.

Now, we build in a margin of safety in a sense to admit that we don't have an extremely precise notion of what the exact level is.

Q. In connection with that, what is the relevance of finding a no-effect for one toxic response to another possibly toxic response?

A. The problem with that is that we may continue to find no effective levels for different responses, and if we find, for example, that the no-effect level for vital capacity is one number and then the next year find that the no effect level for airway resistance is another number, as we refine our tests, we are going to find lower and lower no response levels. This leads most people to believe, and this is my own view, that there is no cut-off point, that there is a continuum of response, a kind of stepwise response and the only safe level, of course, is zero. Since that is impracticable, we then settle on a compromise which is a standard that includes a sizeable safety margin. (Tr. 6029-6031)

Thus clearly the determination of an adequate margin of safety must at this time involve a certain degree of judgment and cannot be done with the rigor of the proof of a theorem in geometry. Testimony which had bearing on health effects in the State of Ohio was also presented by Dr. John Finklea, Director of the National Environ-

mental Research Center of the Environmental Protection Agency located in Research Triangle Park, North Carolina. Dr. Finklea testified that:

> . . . We can also give you some statistical estimates to give you an order as the size of the problem you are working with. For the metropolitan areas in the State of Ohio, they exceed 100,000 in population. When we do this, we would think that by not meeting the standards that you would be caught somewhere between greater than 100, but less than 250 deaths each year; that you would probably cause somewhere between a quarter of a million and 400,000 asthmatic episodes per year, roughly two to three episodes per asthmatic; that one might expect somewhere around half a million, between 800,000 and 900,000 more days in which your senior citizens would feel symptoms such as heart and lung disease were detectably worsened. This would mean the average senior citizen with one of these diseases would feel worse 68 days a year. You might expect somewhere between 150 and 300,000 more severe acute lower respiratory diseases in children each year, and this would mean that maybe one child in every three or every four would have one more severe illness each year. These would be children under twelve.
>
> We would expect over a period of several years in your State of Ohio here that somewhere between, oh, forty and sixty thousand extra people would develop the symptoms of chronic lung disease. So, these are not estimates given to you as precise figures, but to give you the magnitude of the health problems with which we are dealing.
>
> Q. Now, did you attempt to determine whether there would be effects if the Federal standards were met?

A. Yes, if you meet the standards, we would not expect an increase in death or chronic lung disease in adults or children. There would be roughly maybe somewhere around 10,000 extra asthmatics a year, 10,000 days on which elderly people would be bothered, but this is far less than one such attack per day per person. In other words, there would be some adverse effects in the most susceptible populations, but the relative effects would be much less. (Tr. 6380-6382)

Dr. Finklea upon cross-examination further testified that:

By Mr. Snyder:

Q. Going on with your estimate as to the effects in Ohio, is this exceeding the Federal sulfur dioxide ambient air levels?

A. I am glad you brought that up, sir. The estimates I gave to you were associated with the increased levels of the sulfates. We also are in the process of making levels, estimates which would relate to the fumigation phenomena that one sees around power plants which include both sulfur dioxide and sulfur trioxide acid aerosols. This would be an additional effect on top of those I have just discussed. (Tr. 6386)

Upon further cross-examination Dr. Finklea was asked to give the bases for his statements:

Q. I am still not certain what was your hypothesis for the possibility of adverse effects in Ohio. Were you talking about the results if the Federal ambient air standards for sulfur dioxide were exceeded?

A. Yes. We worked with the National Power Survey people who have worked together with the

Federal Power Commission and utilities have made estimates what they will have to do to meet standards and what they will not be able to do to meet both emission standards and national standards. We also have a present loading of suspended sulfates in Ohio.

For example, in most of your metropolitan regions you exceed the threshold for adverse effects between one and two hundred days each year.

* * * * *

Q. I keep getting lost. Is your prediction for Ohio based on the ambient Federal sulfur dioxide levels being exceeded? Can you say just yes or no to that?

A. I don't think that is a question I can answer yes or no.

Q. Can you answer yes or no and give some explanation?

A. No, sir. I can say what it is based on for you.

Q. Well, would you—

A. Based on present emissions of sulfur oxides, present levels of sulfur oxides and acid sulfates as measured by their proxy, water soluble sulfates, and on a predicted change in sulfate levels that will accompany changes in sulfur dioxide emissions. (Tr. 6386-6388)

Thus the estimates of adverse health effects are based in part upon emission data and levels of acid sulfates in the air as well as sulfur oxide. Finally, upon cross-examination when Dr. Finklea was asked if he agrees with the statement of another scientist, Dr. Higgins of the School of Public Health, University of Michigan, Dr. Finklea responded:

Q. Dr. Higgins concludes that the present primary standards for sulfur dioxide and particulates are adequate to protect public health. It is conceivable that further reduction of these standards might help to protect a few people with pre-existing disease, but it is very unlikely.

A. I would agree with Dr. Higgins that a number of susceptible people with pre-existing diseases are possibly adversely affected by aerosols exposure that occur when the primary standards are met. Whether or not two percent of the population were asthmatic and the 27 percent of older people were chronic heart and lung disease are a significant part of the population would be up to your decision. This is to try to prevent, to fully protect their health.

I can give you an idea of about how many people that would be in Ohio, if you like.

Q. You have already testified to that, thank you. (Tr. 6399-6400)

In summary, the evidence before the Air Pollution Control Board when it promulgated the ambient air standards and the evidence presented before the Hearing Panel is such that a rational person with the responsibility to set ambient air standards when acting in a prudent and reasonable manner could conclude that an adequate margin of safety required more stringent standards than those promulgated by the Administrator of the Federal EPA and therefore would opt for the Ohio State ambient air standards.

The Ohio Environmental Protection Agency's Regulation AP-3-02 was adopted in accordance with section 119.03 and section 3704.03(D) of the Ohio Revised Code. (Tr. 162, 164, 183). It has been testified by Mr. Jack Wunderle, Assistant Division Chief, Division of Waste Management and Engineering of the Ohio Environmental Protection Agency, that he was the engineer in charge of the Air Pollution unit of the Ohio Department of Health when the Ohio Air Pollution Control Board adopted the regulations in Chapter AP-3 (Tr. 73, 74) and that, although he was not privy to the exact thought process of the Air Pollution Control Board, they did consider the federal criteria documents. Mr. Wunderle also stated that the statutory standards in section 3704.03 of the Ohio Revised Code were considered. (Tr. 182-185). These statutory standards are set out in section 3704.03(D) of the Ohio Revised Code, for ambient air standards and section 3704.03(E) of the Ohio Revised Code for emission standards. The former statute requires that consideration be given to evidence relating to:

(1) The character and degree of any injury to human health or welfare, plant or animal life, or property, or any unreasonable interference with the comfortable enjoyment of life or property as the result of air pollution;

(2) Conditions calculated to result from compliance with such standards and their relation to benefits to the people of the state to be derived from such compliance;

(3) The quantity and characteristics of air contaminants and the frequency and duration of their presence in the ambient air;

(4) Topography, prevailing wind directions and velocities, physical conditions, and other factors which may or may combine to affect air pollution.

When promulgating ambient air standards, section 3704.03 (E) requires, that consideration be given to evidence relating to:

(1) Conditions calculated to result from compliance with such regulations and their relation to benefits to the people of the state to be derived from such compliance;

(2) The quantity and characteristics of air contaminants, the frequency and duration of their presence in the ambient air, and the dispersion and dilution of such contaminants;

(3) Topography, prevailing wind directions and velocities, physical conditions, and other factors which may combine to affect air pollution.

The emission regulations associated with the ambient air standard for SO_2 are AP-3-13 and AP-3-14. The former regulation sets emission limitations from the various industrial sources, while the latter regulation provides for emission limitations for fuel burning sources such as those at CEI's Lakeshore Plant and the City of Cleveland Plant. However, the testimony before the Hearing Panel (Tr. 166, 181-181A) and those sections of the Ohio Implementation Plan of which the hearing panel took official notice (Tr. 199-200), indicate that these regulations were expected to be used simultaneously to achieve the ambient air quality standards. Therefore, although the rollback model, or straight proportional reduction was used (wherein the emissions are reduced by the percentage difference between the ambient air concentrations and the ambient air standard), the two regulations allow varying emissions limitations for the different kinds of sources (Tr. 120-121).

Indications based on the testimony of Mr. Wunderle are that, although he was not privy to the specific reasoning of the Ohio Air Pollution Control Board, they did give consideration to the type of evidence described in section 3704.03(E)(1)-(3) and that this was done in the context of

using the rollback modeling technique in conjunction with the air quality display emissions modeling which in turn took into consideration in a general way the meteorology, topography and wind direction and velocities (Tr. 78-81). Furthermore, an examination of the sections of the Ohio Implementation Plan of which official notice was taken, and the testimony given before the hearing panel shows that the rollback model used as part of the basis for Regulation AP-3-14 incorporated population, commercial and industrial growth factors. By the use of these growth factors the resulting emission standards are such that the location of new industry and new sources of air contaminates could be accommodated in the various air quality control regions of the state. The fact that consideration was given to what reductions of emissions were necessary in the most polluted area of the state in determining the emission standards was compensated by the use of growth factors which indicated that the rate of emission would increase due to growing industrial and commercial activity. (Tr. 108-111).

> As we set the regulation to a point where it will achieve the air quality standard. Given that fact and the fact that other priority one regions are lumped with that example region, there is some overkill in the other regions because we will be achieving an air quality less than the air quality standard, so there is room, then, in the other priority one regions along with that example region for additional sources of emission to locate in the other air quality control regions, so there is a growth potential there for additional sources. That overkill accommodates the addition of more sources. (Tr. 110)

The use of the word "overkill" is ironic because it refers to the situation where a given area of the state obtains air

which is of a higher quality, and therefore more healthy and safer than required by the ambient air standards. According to the testimony of Dr. Finklea, given above, an "overkill" area has the potentially of protecting the two percent of the population which are asthmatics and the twenty-seven percent of the elderly people who have chronic heart or lung conditions.

The alternative to the use of the rollback model is to use the diffusion model. This kind of modeling was discussed before the hearing panel by Dr. Howard M. Ellis, a founder of Environ-Plan, Inc., an environmental planning and consulting company. Dr. Ellis was questioned about the report prepared by the Walden Research Corp., joint applicant's exhibit 26A-J, his testimony was in part:

> Now, the procedure used to carry out predictions was a quite detailed recently developed air pollution diffusion model that—it was my understanding—was developed by the Division of Meteorology within the Federal Environmental Protection Agency.
>
> * * * * *
>
> This model used basic Caussian plume diffusion equations. It used the Briggs Plume Rise Formula. It used dispersion coefficients based on Pasquill, published by the Turner Workbook of the Federal Environmental Protection Agency and it used various other model details which were a very sound effort to represent as accurately as possible what the largest maximum 24-hour concentrations would be and what the largest annual average concentrations would be from each individual power plant. (Tr. 2028, 2029)

The Turner "Workbook" referred to above is "Workbook of Atmospheric Dispersion Estimates" U. S. Dept. of HEW, PHS Pub. No. 992-AP2-26 (Rev. 1970). This model and its

limitations and great uncertainties has been discussed previously by the Board in *Buckeye Power, Inc., et al. v. Whitman*, EBR 74-6, September 12, 1974 at 158-162 Slip Op., therefore the "Workbook" will only be briefly quoted and paraphrased;

> Because of a multitude of scientific and technical limitations the diffusion computation method presented in this manual may provide *best estimates* but not infallible predictions. In the unstable and stable cases, severalfold errors in estimate of [the dispersion parameter] can occur for the longer travel distances. In some cases the [parameter] may be expected to be correct within a factor of 2, however. These [cases] are: (1) all stabilities for distance of travel out to a few hundred meters; (2) neutral to moderately unstable conditions for distances out to a few kilometers; and (3) unstable conditions in the lower 1000 meters of the atmosphere with a marked inversion above for distances out to 10 kilometers or more. . . . The ground-level centerline concentrations for these three cases (where [the parameter] can be expected to be within a factor of 2) should be correct within a factor of 3 . . . .
>
> Estimates of II, the effective height of the plume, may be in error because of uncertainties in the estimation of Delta II, the plume rise. Also, for problems that require estimates of concentration at a specific point, the difficulty of determining the mean wind over a given time interval and consequently the location of the x-axis can cause considerable uncertainty. (Workbook at 7, 10)

In other words, unless something more is added to the model, the calculated concentrations can be expected to be associated with uncertainties of the order of 300 percent. The method used to overcome this great uncertainty is to

calibrate the model using measured ambient air quality data; that is the parameters in the model are adjusted so that the model calculates back the known concentrations at known locations and therefore is assumed to calculate reasonable accurate concentrations at those locations where there are no known data. However, with respect to what Dr. Ellis described as ". . . a very sound effort to represent accurately as possible the largest maximum number 24-hour concentration . . .", the Walden report states;

> Since only power plant operations were being modeled, it was not possible, in general, to calibrate the model using measured air quality data. The calculated values of concentration are considered to be reasonable estimates of anticipated concentrations using best available modeling techniques. (Joint Applicants Exhibit 26-I at 1-6).

On the basis of the statement given in the "Workbook" and the above statement from Exhibit 26-I the best available diffusion model calculations are expected to be highly uncertain. And therefore diffusion model calculations are not significantly more reasonable, if at all, than rollback calculations. That is to say, that there is no reliable substantial and probative evidence to prefer the more complex but greatly uncertain diffusion model results over those of the simple but uniform rollback model.

Recently, the United States Supreme Court, 44 Law-Week 3746, refused to review a Fifth Circuit Court of Appeals opinion which had ruled that the use of the rollback model was not arbitrary or capricious. Since portions of this Fifth Circuit Opinion had been quoted by the various parties in this appeal, it is appropriate at this time to examine a rather lengthy quotation in order to properly evaluate the relation of this holding to the present case.

We must now consider the EPA's use of a straight rollback model, which model it acknowledges to be based upon a simplistic assumption rather than experimental data or proven theory. While we are uneasy that such an unreliable construct should be the basis of wide-ranging government action, we do not consider the use of the straight rollback model to be arbitrary and capricious.

The statute requires implementation plans which will insure attainment of the national air quality standards. To design such plans it is necessary to utilize some model relating reductions in antecedent emissions to resulting reductions in pollutant concentrations. In the absence of sophisticated information, the EPA has been forced to rely on crude assumptions. We cannot object, for it is not our role to judge whether the EPA's projections are accurate, but only whether they represent arbitrary or capricious exercises of its authority. Necessity, which has mothered the EPA's invention of this model, also protects it from a judicial insistence on greater reliability.[16]

[16][Decisions which are not arbitrary and capricious in the light of existing knowledge may become so by dint of scientific advances. By its use of estimations and sparse data, the EPA creates a continuing responsibility to develop, review, and apply updated and more sophisticated information.]

Further, we think it significant that the straight rollback model is, in an important sense, neutral, in that it establishes as a starting point the commonsensical proposition that pollutions will be reduced proportionally to reductions in their chemical precursors. Deviations from this assumption are to be permitted or required only when supported by empirical data or

sound theory. Such a stance is not arbitrary and capricious, . . .

To summarize, we conclude that the EPA was not arbitrary or capricious in its decisions to reject Texas' proposed reduction model and to substitute a straight rollback model. *State of Texas v. EPA*, 499 F.2d 289, 6 ERC 1897, 1903, 1904 (5th Cir, 1974).

The Board can only add to the above statement that at this time the evidence in the Record before the Environmental Board of Review is such that the more complicated diffusion model cannot be truly considered an advance over the rollback model, yielding highly more accurate and reliable results. In view of the fact that the diffusion model calculations are uncalibrated and that these calculations are highly uncertain, the use of the rollback model cannot at this time be considered to be unreasonable or arbitrary. On the basis of the testimony and exhibits in the Record, which was before the Director, there is reliable substantial and probative evidence that a rational administrative official exercising reasonable prudence could base emission standards upon a rollback model and decline to amend said standards.

IV.

These regulations have never been repealed. When the Director adopted Chapter EP-11 of his regulations on January 21, 1974, which were intended to replace Chapter AP-3 of the Ohio Air Pollution Control Board, the ambient air standards given in Regulation AP-3-02 were unchanged and Regulation AP-3-14 as it applied to boilers with a capacity greater than 250 million BTU's per hour was also unchanged. When the Environmental Board of Review vacated the Director's order of January 1, 1974 (which had adopted EP-11), there was no substantive effect on the

state ambient air quality standards nor on the validity of Regulation AP-3-14 with respect to the boilers with capacity greater than 250 million BTU's per hour. The emission standards given in Regulation AP-3-14 were approved by the Administrator of the Federal EPA as part of the Ohio Implementation Plan, 37 Fed. Reg. 10886 (May 31, 1972). This approval by the Administrator was vacated and remanded by the Sixth Circuit Court of Appeals in order that the procedures of the Administrator comply with the Administrative Procedure Act, which required that interested persons be allowed to comment on the Implementation Plan before the Administrator approved or disapproved of the Plan. *Buckeye Power, Inc., et al v. EPA*, 481 Fed.2d 162, 5 ERC 1611 (6th Cir. 1973). Shortly thereafter the Governor withdrew from the Federal EPA the Ohio Implementation Plan; the Board knows of no state or federal law or regulation which allows the withdrawal of a state implementation plan. When the Implementation Plan was finally reapproved by the Administrator, 39 Fed. Reg. 13542 (April 15, 1974), the Implementation Plan did not contain a strategy to obtain the ambient air standards for sulfur dioxide (40 C.F.R. §52. 1881). However, as correctly pointed out by Appellant NOLA, Regulation AP-3-14 although not part of the federally approved implementation plan is indeed a legitimate emission limitation under Ohio law. (Board's Record, Item GGGGGG at 5, 7).

The fact that the Director has an obligation to put into execution a plan to achieve the state ambient air standards is not dependent on federal law has been pointed out and discussed in detail in a previous concurring opinion, *Tri-State Air Committee v. Whitman*, 70 O.O.2d 281, 292, 293 (1973):

Notwithstanding the Federal and State statutes referred to above, there is also a basis for the Director

to develop plans to achieve the *State* (as differentiated from the *Federal*) ambient air standards (i.e. AP-5-02) and follow the State compliance time schedule. This basis rests entirely on Ohio law. R. C. §3745.011 states:

"It is the intent of the General Assembly that the Environmental Protection Agency shall:

"(A) Promulgate and put into execution a long term comprehensive plan and program to conserve, protect and enhance the air, water and other natural resources of this State;

"(B) Prevent and abate pollution of the environment for the protection and preservation of the health, safety, welfare and property, of the people of the State; . . ."

* * * * *

R. C. §3704.03 provides the Director, independently of any *Federal* laws, a complete array of *State* powers and prerogatives to "develop programs for the prevention, control and abatement of air pollution". Division D of this statute says that "the Director may adopt, modify and repeal regulations . . . prescribing ambient air quality standards for the state as a whole or for various areas of the state." Division E of this statute states that emission standards may be adopted by the Director which are necessary for achieving and maintaining compliance with the ambient air quality standards. Divisions F and G allow the Director to set up a program of permits for the purpose of attaining the ambient air standards, and Division II provides for the issuance of variances from the emission standards.

Once there have been adopted ambient air quality standards for the State pursuant to R. C. §3704.03(D),

the rest of R. C. §3704.03 is triggered and the Director must perform the types of actions set out in the other divisions of R. C. §3704.03. . . .

It has been shown above that the Director did not require the utilities to control sulfur dioxide emissions ". . . because there is an absence of ambient air quality data in the record showing widespread and serious violations of the ambient air quality standards for sulfur oxides, the requirement that the applicants must show unreasonableness in the specific application of regulations has been met." On the basis of the Director's statement in his order of December 12, 1974, it is not surprising that Regulation AP-3-14 is not being enforced. (Board's Record, Item BBBBB at 2). Furthermore, Mr. Jack A. Wunderle now Chief of the Office of Air Pollution Control of the Ohio EPA, testified at a hearing before the Board that if a given source does not object to the application of Regulation AP-3-14 then it must comply with this regulation, but if there is an objection then the Agency tries to separate the application of the emission regulations for particulate matter from that of the regulation for SO_2. (Board's Record, Item JJJJJ at 91, 92).

When considering the lawfulness and reasonableness of the position of the Director, it is very important to realize that the application of the emission regulations to a particular source via an enforcement order issued pursuant Section 3704.03(S) of the Revised Code or via a variance issued pursuant Section 3704.03(H) of the Revised Code depends upon several more factors than just ambient air quality data. When the Director issues an order pursuant Section 3704.03(S) of the Revised Code, he must take into consideration ". . . evidence relating to the technical feasibility and economic reasonableness of compliance with such orders, and their relation to benefits to the people

of the state to be derived from such compliance." When the Director issues a variance according to Section 3704.03 (H) of the Revised Code he must give consideration to evidence that among other things:

> (1) Compliance with such standards and other regulations is impractical because of conditions beyond the control of the applicant.
>
> (2) Compliance with such standards and other regulations would be technically infeasible or economically unreasonable.
>
> (3) The emissions of the applicant for which a variance is requested have little effect on ambient air quality and do not endanger or threaten to endanger human health, due to topography, direction and velocity of prevailing winds, height of emission source, or other factors.
>
> (4) Compliance with the standards or other regulations from which variance is sought would produce serious hardship without equal or greater benefit to the public.

This statute also states "no variance shall be issued, . . . until the Director has considered the relative interest of the applicant, other persons and property affected by the discharge, and the general public." All three parties in their respective briefs recognize that these statutes involve a certain balancing of evidence (Board's Record, Item LLL at 13, Item XXXX at 18, Item GGGGG at 9).

When examining the air quality data given in the Record before the Director, it is extremely important to recognize that the ambient air quality standards to which this data are to be compared are those given in Regulation AP-3-02. These standards are to be used because, as shown

above, they have been lawfully adopted pursuant Section 3704.03(D) of the Revised Code by the Ohio Air Pollution Control Board pursuant the procedures given in Chapter 119 of the Revised Code and that these standards are reasonable. Therefore these standards have the force and effect of law. *Kroger v. Glander, Supra.* During the hearings before the Hearing Panel, the Agency first presented air quality data and then declined to support said data. (Tr. 6554, 6555). The reason given for the failure to support the data was that there were some discrepancies in the data retrieval system. In an effort to obtain air quality data from the Agency the Board considered whether or not to take official notice of a compilation of data prepared by the Agency at a later date, however the Agency still declined to support this later listing of data (Board's Record, Item KKKKKK) and therefore the Board will not take official notice of any air quality data unless said data are in the Certified Record of Proceedings or in the Ohio Implementation Plan of which the Hearing Panel took official notice. Appellant CEI did submit air quality data during the hearing before the Hearing Panel, CEI Exhibit No. 4, and CEI still supports said data.

> Now, the order of the Director below was that there was no ambient data warranting application of AP-3-14. That is not to say there was no ambient data in the record. There, in fact, was ambient data in the record. I know, on behalf of Cleveland Electric Illuminating, we submitted the ambient data collected by the City of Cleveland, Division of Air Pollution Control, and I know other parties submitted data on their behalves from other agencies or wherever they got the data, maybe from their own monitors, ...
>
> With respect to the Lake Shore plant and the implications we drew from that data, Northern Ohio Lung Association did not challenge that data. In fact,

it offered its own ambient air quality data on particulates, so it vouched, in a sense, for the accuracy of that data that we put in which we felt supports the Director's order that there is no sulfur dioxide data warranting application of the AP-3-14 regulation that is at issue in these proceedings. (Board's Record, Item KKKKKK at 33-34)

Presumably this data did not get mixed up in the State's data retrieval system.

An examination of CEI Exhibit No. 4 shows that of the 18 sampling sites reported for the City of Cleveland from January 1 to December 31, 1973, ten of these sites exhibit an annual average in excess of the State standard of 60 micrograms per cubic meter and three sampling sites exhibit exactly this value therefore leaving only five of the eighteen sites reporting annual averages below the state standard. Essentially the same data are reported in the joint applicants' Exhibit No. 24. The Walden Report, joint applicants' Exhibit No. 26-I, which does not report directly measured air quality data but rather values obtained from diffusion model calculations, predicts that for maximum load the combined effects of the Lake Shore Plant and the Cleveland Municipal Plant would result in a maximum 24-hour concentration of 715 micrograms per cubic meter with a contribution of 308 micrograms per per cubic meter from the Lake Shore Plant and 407 micrograms per cubic meter from the municipal plant; for nominal load power the corresponding predicted values are 407 micrograms per cubic meter as the combined effect, with contributions of 207 micrograms per cubic meter for the Lake Shore Plant and 137 micrograms per cubic meter for the municipal plant. (Director's Record, Joint Applicants' Exhibit 26-I at 2-9, 2-10) The joint applicants' Exhibit No. 28, a study of the Walden Reports

indicates that the 24-hour maximum concentration reported by these studies should be less but does not state how much less (Director's Record, Joint Applicants' Exhibit 28 at 3-39, 3-40). Table No. 4.32 in the Ohio Implementation Plan shows that for the year 1970 eighteen out of nineteen sampling stations reported annual averages for sulfur dioxide greater than the state standard and ten of these sampling stations reported maximum 24-hour readings greater than the state standard. Therefore, although it is recognized that the ambient air data are uncertain, these data do show consistent and widespread violation of the state ambient air quality standards. There is in the record another type of data, OEPA Exhibit 22-3 which indicates that the State of Ohio is in that region of the country where the concentration of airborne sulfates is the highest. The significance of these relatively high concentration of sulfates is discussed rather extensively in the record.

As shown by the testimony of Dr. Finklea, quoted *Supra.* adverse health effects are related to sulfur dioxide emissions in a rather complicated manner which involves the formation of sulfates. (Tr. 6386). Dr. William Wilson, Chief of the Atmospheric Aerosol Research Section of the United States Environmental Protection Agency, National Environmental Research Center, at Research Triangle Park, North Carolina, testified as to the source and nature of these sulfates. Sulfur oxides which are emitted into the atmosphere from various sources of air pollution are converted into sulfates in the presence of sunlight and other pollutants such as particulate matter. These sulfates occur in the form of very fine particles (aerosols) such as sulfuric acid, ammonium bisulfate and ammonium sulfite. (Tr. 6310-6313, 6320-6327). These fine sulfate particles remained in the atmosphere for a long time and if inhaled

also remain in the lungs for a long time. (Tr. 6318-6320). Once the sulfate particles are inhaled into the moist respiratory tract, their tendency is to grow and be retained by the body. (Tr. 6341).

Studies of the rate of sulfur dioxide emissions and the change in the distribution of the sources emitting sulfur dioxide, compared with the change in concentration of sulfate particles as a function of time and geographic location, indicate that the sulfate particles are transported over great distances and that it is plausible that sulfur dioxide emitted in one area can affect the sulfate concentration in another area. (Tr. 6328-6329). These sulfates are more toxic than the compound from which they are derived, sulfur dioxide. (OEPA Exhibit 14 at 20, Tr. 6389, 5991-5996). Dr. Finklea has testified that adverse health effects occur at very low concentrations of sulfates (Tr. 6889). Dr. Ayres has testified that a linear relationship exists between the level of bronchitis and sulfate concentration, and that there is no threshold value of the concentration of sulfate below which no adverse health effects occur. (Tr. 5983). A very similar conclusion was reached by Dr. Bertram W. Carnow, Division of Environmental Health, University of Illinois, College of Medicine, Chicago, who has concluded that it is conceivable that *all* concentrations of sulfur dioxide or its reaction products have some adverse health effects. Dr. Carnow also concluded that the combination of the various pollutants at concentrations that had been considered safe were causing respiratory and possibly cardiac effects. (OEPA Exhibit 14 at 22).

Dr. Ayres also discussed studies on animals and human beings which indicated that sulfur dioxide and sulfates may indeed have an adverse effect on more than just the lungs but it could be affecting other organs of the body.

This data has, of course, some bearing upon what may be a reasonable margin of safety for ambient air standards and what is a reasonble enforcement policy concerning emission regulations.

> . . . Most of the people who died in the air pollution episodes died from lung diseases or heart diseases, but recently there has been suggested evidence that sulfur does more than merely involve the lung.
>
> Some of the monkey studies and some of the guinea pig studies have shown liver involvement following sulfur dioxide inhalation and a group at the New York University, Institute of Environmental Health, are using blood samples obtained from Dr. Weir's exposure data and have been available to show concentrations of sulfate in the blood.
>
> * * * * *
>
> The implication of this is that sulfur may have a general body effect that is in addition to its lung effect and these investigators feel rather strongly that there may be a whole new group of toxicologic problems relating to body sulfate burned in addition to lung sulfate.
>
> The reason I bring this up, it has a good deal to do with what are called margins of safety. We base our standards on what is observable at this moment, but we have to be prudent enough to consider possible unknown ramifications that may be quite serious. (Tr. 5997-5998).

The joint applicants had presented before the Hearing Panel a witness Dr. Charles Hine, Professor of Medicine at the School of Medicine, University of California, San Francisco, who testified that epidemiological studies such

as those relied upon by Dr. Finklea and Dr. Ayres do not also provide an adequate connection between cause and effect. (Tr. 1666-1667). Dr. Hine testified that epidemiological studies must be supported by toxicological studies wherein a substance is administered under the controlled conditions of a laboratory setting and in this fashion whatever effect the substance may have is ascertained. Toxicological studies have been criticized by Dr. Finklea because such studies occur over too short an interval of time and do not take into consideration the age, health and behavioral differences found in the general population. (Tr. 6370-6371). Dr. Hine on the other hand testified that in order for an epidemiological study to be valuable it must meet several criteria of statistical and logical rigor. (Tr. 1667-1669). Dr. Finklea has also testified that the epidemiological studies relating adverse health effects to sulfate concentrations requires corroboration with laboratory studies involving human volunteers and animals (Tr. 6376) and that on the basis of laboratory work and theoretical work ". . . one has to be concerned about the systematic effect of sulfur oxide exposure including acid sulfate aerosol exposures as well as the lung effects—heart and lung effects. . .". (Tr. 6378). Finally it is to be noted that toxicological studies indicating that sulfates are significantly more toxic than sulfur dioxide have been reported by Dr. Mary O. Amdur, Harvard School of Public Health, (OEPA Exhibit 14 at 20). The evidence thus indicates that sulfate concentrations in the ambient air "threaten to endanger" the health and welfare of the people of Ohio and that these sulfates are formed from sulfur dioxide in the atmosphere and that this evidence is based not only on ambient air concentrations of SO_2 but also on emission data and the concentrations of the sulfates themselves. (Tr. 6388).

The fact that the Agency refuses to stand by its own air quality data does not preclude the enforcement of the state emission standards for the following reasons. First, there are data in the record which have been presented by the other parties which indicate widespread serious violations of the state ambient air standards; secondly, the Director is obligated to enforce the state laws and regulations so long as they do not conflict with the federal law, and the more stringent state standards are expressly allowed by federal law; thirdly, secs. 3704.03(H) and (S) require that the Director balance several factors when issuing variances or compliance orders and not just consider air quality data; and lastly, the Director when considering these various factors must give the most weight to factors which "threaten to endanger" the health and welfare of the people. In the next sections a discussion of these factors which are given in sec. 3704.03(H) will be presented and the reasons why consideration of health effects is paramount will be shown.

VII

The Director has pointed out that the Hearing Panel used an overly restrictive definition of technical feasibility. (Director's Record, Item 2 at 11). This definition was deemed overly restrictive because it would obligate the enforcement agency to depend upon the willingness of operators of the sources of air pollution to install and test the abatement equipment for at least one year at their own discretion. The Director states that a more adequate criteria to judge the available technology was that given by the Court of Appeals for the District of Columbia Circuit in *Essex Chemical v. Ruckelshaus*, 5 ERC 1820, 1825 (D.C. Cir. 1973) which states and which is partially quoted by the Director as follows:

> . . . An adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way. An achievable standard is one which is within the realm of the adequately demonstrated system's efficiency and which, while not at a level that is purely theoretical or experimental, need not necessarily be routinely achieved within the industry prior to its adoption.

The various techniques used to abate sulfur dioxide emissions, using either physical or chemical methods to remove the SO_2 from the gas streams are called flue gas desulfurization (FGD) systems. One such FGD system, lime/limestone scrubbing, has a long history of development in operating in various parts of the world. OEPA Exhibit 1-D-H indicates that about twelve such systems are being operated at American plants presently, with many more on order. There are several companies which offer such systems and guarantee their performance. (Tr. 1209, 1243, 1345-1346). One such system which has been demonstrated to successfully remove the sulfur dioxide contaminant from the emissions of an American power plant is the Paddy's Run Station of Louisville Gas and Electric Company. (Tr. 315, 427-430, 1434, 1451). Concern has been expressed by the utilities' witnesses, Richard Engdahl, Senior Research, Batelle Laboratories; Jeffrey W. Bradstreet, Senior Air Pollution Analyst, NUS Corporation; and A. V. Slack, President of the SAS Corporation, a consulting firm, that the calcium hydroxide, carbide sludge, which is used at the Paddy's Run Plant has some special properties and that this calcium hydroxide is not generally available. (Tr. 2215, 2377, 3076-3077). And for

this reason the Hearing Panel felt that the Paddy's Run FGD system was not generally available. (Director's Record, Item 3 at 164-165). However OEPA Exhibit 2, discusses briefly how calcium oxide is used to generate calcium hydroxide and states that there are several types of limestone which would be suitable as the starting material and that these types of limestone occur in and near Ohio. Another example of a successful use of FGD is the Mitsui Aluminum Company operation (Tr. 297, 314, 431) and the utilities' witness agreed (Tr. 2961, 3144-3145). However there was criticism of the Mitsui operation which is summarized by the Hearing Panel's report as being the use of the carbide sludge, lack of fluctuations in the load on the FGD system which would be typical of American electric utilities operation, and the concern that there may be water pollution problems (Director's Record, Item 3 at 167). However as mentioned above there is no proof in the Record that a special type of calcium hydroxide is needed in fact the implication is the opposite; there is also testimony in the Record that the Mitsui operation does indeed experience fluctuation due to the scrubber operation itself (Tr. 426-427) and there also is testimony that for the most part the Mitsui operation is a closed loop which does not cause water pollution (Tr. 420-421). Examining the Record and taking into consideration the standard of sufficient demonstration given in *Essex Chemical v. Ruckelshaus, Supra,* the Director's discussion given in his order of December 12, 1974 (Director's Record, Item 2 at 12-15) is indeed reasonable and the Director's ruling that Recommendation 7 of the Hearing Panel is rejected (*Ibid.* at 15) is lawful and reasonable and is affirmed by the board. Also the Director's rejection of the Hearing Panel's conclusion (No. 15) as to the technical feasibility of FGD is affirmed by the Board. Technical feasibility

is therefore not a bar to the enforcement of the state emission standards.

The Hearing Panel's report stated, in the context of discussing several federal cases, that the concepts such as "economic reasonableness and technical feasibility" may be considered ". . . so long as the conclusions dictated by consideration of such factors do not conflict with the primary purpose of protecting the public health." (Director's Record, Item 3 at 78). That the factors relating to health effects are to be given great weight when construing the State regulations is stated directly and unambiguously in the Director's own Regulations:

> AP-2-02
>
> It is the purpose of all air pollution regulations to set forth such requirements as shall be necessary to secure and maintain those levels of air quality which are consistent with the protection of health and the prevention of injury to plant, animal life, and property in the State of Ohio, and to provide for the comfortable enjoyment of the natural attractions of the State to the greatest extent practical. All regulations of the Board [Director] shall be construed in such manner as to effectuate this purpose.
>
> Former regulation AP-2-02 adopted January 28, 1972, and effective February 15, 1972, is repealed. 3333 3 July 24, 1972; effective August 7, 1972.)

Thus the clear intent of the General Assembly, as stated in Section 3704.04 and 3745.011 of the Revised Code, is that permits and variances be issued, modified or denied in such a fashion that the Environmental Protection Agency acts in accordance with and to the furtherance of the goals and objectives stated in Section 3745.011 of the Revised Code.

As established above, state law must be complied with; even in those circumstances where the Director has failed to fulfill his obligations under federal law he is still bound by state statutes and state regulations which do not conflict with the federal law. Thus when the Director issues a variance pursuant Section 3704.03(H) of the Revised Code or an abatement order pursuant Section 3704.03(S) of the Revised Code, this action must be done in a manner consistent with regulation AP-2-02 and Section 3745.011 of the Revised Code. The Hearing Panel has argued that the terms "technical feasibility", "economic reasonableness" and the "benefits to the people of the State to be derived from the compliance with the applicable emission standards," as set forth in Section 3704.03(S) of the Revised Code include all the specific considerations set forth in Section 3704.03(H) of the Revised Code. This interpretation of these two statutes leads to the conclusion that when the entire Chapter 3704 is read in conjunction with the Director's regulations, including AP-2-02, and Section 3745.011 of the Revised Code, as required, the considerations of technical feasibility and economic reasonableness must be subordinated to those benefits to the people of this State which concern health and welfare. That is to say the primary consideration in acting upon a variance pursuant Section 3704.03(H) or an abatement order pursuant Section 3704.03(S) of the Revised Code is that:

> The emissions . . . have little effect on ambient air and do not endanger or threaten to endanger human health. . . .

The term "endanger" in the context of environmental federal law has been discussed at great lengths in *Reserve Mining v. U. S.*, 514 Fed.2d 492, 7 ERC 1618 (8th Cir. 1975). This case dealt with the question whether or not an injunction should be issued prohibiting the emissions

of an asbestos-like material into the air and into the waters of Lake Superior.

> In the context of this environmental legislation, we believe that Congress used the term "endangering" in a precautionary or preventive sense, and, therefore, evidence of potential harm as well as actual harm comes within the purview of that term. We are fortified in this view by the flexible provisions for injunctive relief which permit a court "to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require." 33 U.S.C. §1160(c)(5).

We deem pertinent the interpretation given to the term "endanger" by Judge Wright of the District of Columbia Circuit in his analysis of the congressional use of the word "endanger" in the context of a provision of the Clean Air Act. 42 U.S.C. §1857f-6c(c)(1)(A)(1970).

Judge Wright observed:

> The meaning of "endanger" is, I hope, beyond dispute. Case law and dictionary definition agree that endanger means something less than actual harm. When one is endangered, harm is *threatened;* no actual injury need ever occur. * * *
>
> "Endanger," * * * is not a standard prone to factual proof alone, Danger is a risk, and so can only be decided by assessment of risks. * * *
>
> [A] risk may be assessed from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data, or from probative preliminary data not yet certifiable as "fact." [*Ethyl Corporation v. Environmental Protection Agency,* No. 73-2205 [7 ERC 1353] (D.C. Cir., Jan. 28, 1975) (dissenting op. at 11, 31-33 (emphasis in original) (footnote omitted).]

Although the Supreme Court has not interpreted the concept of "endangering" in the context of an environmental lawsuit, it has emphasized the importance of giving environmental legislation a "commonsense" interpretation. Mr. Justice Douglas, writing for the Court, said:

> This case comes to us at a time in the Nation's history when there is greater concern than ever over pollution—one of the main threats to our free-flowing rivers and to our lakes as well. * * * [W]hatever may be said of the rule of strict construction, it cannot provide a substitute for common sense, precedent, and legislative history. [*United States v. Standard Oil Co.,* 384 U. S. 224, 225 [1 ERC 1033] (1966).]

The Ohio law may be interpreted to give even greater weight to the potential for harm than does the federal law. Ohio law requires, as well as a finding that emissions do not endanger human health, that the emissions must not "threaten to endanger human health" or in Judge Wright's terms "threaten to threaten." This requires the Director under State law to be even more cautious in considering possible risks to human health than is required under federal law. It is important to note that Ohio law defines the phrase "air pollution" itself in such terms as threatening to be injurious to human health or welfare as well as threatening to be injurious to other environmental factors. Section 3704.01 states:

As used in sections 3704.01 to 3704.11, inclusive, of the Revised Code:

(A) "Air contaminant" means particulate matter, dust, fumes, gas, mist, smoke, vapor or odorous substances, or any combination thereof.

(B) "Air pollution" means the presence in the ambient air of one or more air contaminants or any combination thereof in sufficient quantity and of such characteristics and duration as *is or threatens* to be injurious to human health or welfare, plant or animal life, or property, or which unreasonably interfere with the comfortable enjoyment of life or property.

Furthermore, it is to be pointed out that in the present case no injunction is being considered, but rather variances or compliance orders. Since the remedy is so much less harsh, the reasons for giving great weight to the health effects are even more compelling.

In the order of December 12, 1974, at 33 the Director states:

> Pursuant to Chapters 119 and 3704(S) of the Ohio Revised Code the Director makes the following orders:
>
> . . .

It is not clear whether the Director intended his order to be pursuant Chapter 119 and only that portion of Chapter 3704 which is Section 3704.03(S) or whether the Director intended to make his order pursuant the entire Chapter 3704. In any case it has been shown above that whether the Director considered his order to be an order issuing a variance or whether the Director considered his order to be an enforcement order he must give consideration to evidence relating to several factors and preeminent among these factors is whether the emissions have little

effect on the ambient air quality and do not endanger or threaten to endanger human health. Moreover, with regard to sulfur dioxide emissions the Director did not issue any compliance orders at all nor did he issue variances, in spite of the fact that Section 3704.05 of the Revised Code states in part:

> (A) No person shall cause, permit, or allow emission of an air contaminant in violation of any regulation adopted by the director of environmental protection under division (E) of section 3704.03 of the Revised Code, unless such person is the holder of a variance issued under division (H) of section 3704.03 of the Revised Code, permitting the emission of such contaminant in excess of that permitted by such regulation.
>
> (B) No person who is the holder of a variance issued under division (H) of section 3704.03 of the Revised Code shall cause, permit, or allow emission of an air contaminant or contaminants listed therein in violation of the conditions of such variance or fail to obey an order of the director issued under authority of such division.

It has been established above that the Director has adopted regulation AP-3-14 under Division (E) of 3704.03 in compliance with Chapter 119 of the Revised Code and that this regulation is reasonable. Therefore it is the opinion of the Board that the Director must issue variances or enforcement orders for those sources which are in violation of regulation AP-3-14. Furthermore section 3704.03(H) and Regulation EP-32-03 require that the variances may not exceed one year without being renewed; Regulation EP-32-03(C) requires each variance to contain a date upon which compliance with all applicable statutes and regulations will be achieved.

The assignments of error of NOLA are thus sustained insofar as the Director failed to issue a variance with a compliance schedule for the abatement of sulfur dioxide for the sources in question and that this failure was not in accordance with State law and regulations.

VIII

The first assignment of error presented by CEI to be considered next is that the Director acted arbitrarily, unreasonably and in violation of Regulation EP-40-26 and Section 119.09 of the Revised Code. The issue raised is whether or not the Director reasonably and lawfully responded to the report of the Hearing Panel. The pertinent part of the statute states:

> . . . The recommendation of the referee or examiner may be approved, modified, or disapproved by the agency, and the order of the agency based on such report, recommendation, transcript of testimony and evidence, or objections of the parties, and additional testimony and evidence shall have the same effect as if such hearing had been conducted by the agency. No such recommendation shall be final until confirmed and approved by the agency as indicated by the order entered on its record of proceedings, and if the agency modifies or disapproves the recommendations of the referee or examiner it shall include in the record of its proceedings the reasons for such modification or disapproval.

It is evident upon the face of the statute that the Director only had a responsibility to respond to the recommendations of the Hearing Panel and that there was no express obligation to respond to any findings of fact or conclusions of law. Even if the circumstances were such that it was

reasonable for the Director to state the reasons for rejecting the Hearing Panel's conclusion No. 15, Part II of the Director's order of December 12, 1974 not only gives the reasons in detail for the rejection of this conclusion, but also lists the reasons for rejecting Recommendation 7 of the Hearing Panel. (Director's Record, Item at 10-15). Similarly, Part III of the Director's order of December 12, 1974, states the reasons for the rejection of Recommendations 1 through 6 of the Hearing Panel. (*Ibid.*, at 16-20). Finally, with respect to the last recommendation of the Hearing Panel, Recommendation 8, the Director stated, "Recommendation 8 of the Hearing Panel is accepted in general terms, the specific orders appearing at the end of this report." This is interpreted by the Board to mean that the Director intended to modify Recommendation 8. A comparison of the orders appearing at the end of the Director's report and that appearing at the end of the Hearing Panel report indicates that, with respect to the Lake Shore plant and the City of Cleveland plant, both orders require the same final compliance date, but that the Director's order also includes intermediate dates by which certain acts shall be accomplished by the applicants. The reasons for this modification of the Hearing Panel's Recommendation 8 are given in detail on pages 21-22 and 23-32 of the order of December 12, 1974. It is the opinion of the Board that the Director did not violate Section 119.09 of the Revised Code, because ample reasons were given by the Director for disapproving or modifying the recommendations of the Hearing Panel.

The Director's Regulation EP-40-26 states in pertinent part:

> (B) The written decision of the Director may adopt the report of the Hearing Examiner, or parts thereof. When the decision of the Director disap-

proves or modifies the recommendations of the Hearing Examiner in whole or in part, the Director's written decision shall include:

> (1) The reasons for rejecting the recommendations of the Hearing Examiner.
>
> (2) Findings of fact and conclusions of law together with the reasons therefor with respect to all matters where the Director does not adopt the recommendations of the Hearing Examiner.

Taking into consideration the discussion in the above paragraph with regard to Section 119.09 of the Revised Code, the only possible violation of the above portion of Regulation EP-40-26 could be that the Director failed to give his findings of fact and conclusions of law in some sort of numerical list. Parts I-IV of the order of December 12, 1974, contains extensive findings of fact and conclusions of law, therefore it is the opinion of the Board that the Director has substantially complied with Regulation EP-40-26 and the first assignment of error of CEI is overruled.

The second assignment of error of CEI alleges that the Director acted arbitrarily, unreasonably and unlawfully in rejecting the Hearing Panel's recommendation that Regulations AP-3-02, AP-3-11, which prescribes emission limitations for particulate matter, and AP-3-14 should be amended and that the Director acted unreasonably and unlawfully by issuing compliance orders with respect to Regulation AP-3-11 prior to the amendment of said regulation. As indicated above the Director rejected the Hearing Panel's Recommendations 1 through 6 which called for rulemaking on the basis of the reasons stated in his order of December 12, 1974 (Director's Record, Item 2 at 16-20). The Director stated:

> In determining the scope of questions which could be raised at the consolidated hearing the Hearing Examiners misinterpreted (1) the principles set down in *Battles v. The Ohio Racing Commission*, 52 Ohio App. 2d 530, 230 N.E. 2d [662] (1967) and (2) the intent of the Director regarding the scope of the hearing. (*Ibid.*, at 17)

The *Battles* case stands for the proposition that the Common Pleas Court cannot hear during an adjudication a challenge to the general reasonableness of a regulation. In a more recent case, *Blue Cross of Northwest Ohio v. Superintendent of Insurance*, 40 Ohio App. 2d 285, 319 N.E. 2d 212, the Franklin County Court of Appeals held that rulemaking by an administrative agency must be done by the adoption of rules in accordance with the proper statutory procedures and it must not be done indirectly by an adjudicatory procedure. The Court stated:

> We find no instance in the law of the State of Ohio supporting the principle of rulemaking by adjudication. . . . To the contrary, we believe that law should provide like treatment under like circumstances. . . . Adjudications are the result of a law or rule being applied to a fact situation by a tribunal which is usually considered rigid and unchanging. However, if there be no rule, then the result becomes as flexible as the grass and a breeze. It is important to the democratic process that commissions say what they are doing, and adhere to what they have said unless and until a change is clearly indicated. (319 N.E. 2d 216, 217)

The last part of the above quotation is repeated and followed in *Provens v. Ohio Real Estate Commission*, 45 Ohio App. 2d 45, 341 N.E. 2d 329, 332 (1975). The Record

clearly indicates that the proceeding before the Hearing Panel was an adjudication pursuant Chapter 119 (Director's Record, Item 3 at 3-4, Item 33, Item 34). Furthermore, the Director, in his order of December 12, 1974, makes it clear that it was always his intention that the proceeding before the Hearing Panel should be an adjudication (Director's Record, Item 2 at 18).

Since the Record is clear that the proceeding before the Director was and had to be an adjudicatory proceeding, the Director's rejection of the Hearing Panel's Recommendations 1 through 6 is affirmed by the Board. The Board also concurs with the Director's statement that the only procedure which he can use to amend, rescind or adopt rules and regulations is that given in Section 119.03 of the Revised Code. The second assignment of error of CEI is overruled.

The third assignment of CEI is the contention that the Director acted unreasonably and unlawfully in that he did not issue in accordance with Section 3704.03(H) of the Revised Code an appropriate variance from the sulfur dioxide emission regulations, and that the variance should be unconditional. Once again the Board emphasizes that with respect to SO_2 emissions the relevant standards are those given in Regulations AP-3-02 and AP-3-14 notwithstanding the less stringent federal ambient air quality standards. These state standards are to be complied with because they were promulgated by an administrative body which had been duly delegated such power, the promulgation was in accordance with law and the regulations are reasonable. The contention of CEI is at least partially correct in that the Director should have issued an appropriate variance from the SO_2 emission of regulations; however, there is nothing in Ohio law or in the Director's regulations which would permit an unconditional variance to be issued.

On the contrary, the Ohio statutes expressly require that any source which may cause or contribute to air pollution must be operated under a permit or be issued a variance. See Section 3704.05, *supra*. Also 3704.03(G) empowers the Director to promulgate regulations requiring that all sources be operated pursuant a permit or a variance. Section 3704.99 of the Revised Code provides for penalties for the violation of Section 3704.05 of the Revised Code.

The regulations in Chapter EP-32 of the Ohio Environmental Protection Agency Table of Regulations are the regulations which are referred to in Section 3704.03(G) and which set out the procedures and requirements for issuing permits to operate and variances. Regulation EP-32-03(A) requires as part of a variance an approved compliance schedule and Regulation EP-32-03(C) includes the detailed requirements of such a compliance schedule, among which is "a date on or before which the source shall be operated in compliance with applicable law, rules and regulations." Both Regulation EP-32-03(F) and Section 3704.03(H) of the Revised Code limit the duration of the variance to one year after which it is necessary to obtain annual renewals. Therefore, there is no basis in state law or in state regulations which could allow the issuance of an unconditional variance and, accordingly, the Board overrules that part of the third assignment of error of CEI which requests such an unconditional variance.

CEI's fourth assignment of error states that the Director acted unlawfully and unreasonably in issuing compliance orders with respect to Regulation AP-3-11, which sets out the state's emission standards for particulate matter, and failing to issue an appropriate variance. Section 3704.03(S) of the Revised Code provides for the issuance,

modification or revocation of enforcement orders in order that certain sources may be brought into compliance with emission standards. This section is not a loophole for Section 3704.03(H) of the Revised Code. Orders issued pursuant Section 3704.03(S) are to be complied with immediately or in a reasonably short time. There is no provision for the issuance of permits or variances given in this section of the statute. There is no mention of 3704.03(S) in Section 3704.05 of the Revised Code, thus clearly indicating that the intention of the General Assembly was such that there be compliance with orders issued under 3704.03(S) in a very short time and no continued operation of polluting source in violation of any regulation is allowed under this statute because no permit or variance can be issued pursuant to 3704.03(S).

It is understandable that Appellant CEI might have concluded that the Director's order of December 12, 1974, was pursuant to Section 3704.03(S) of the Revised Code, because of the ambiguous wording of the Director's order (Director's Record, Item 2 at 33), which has been noted above. However, since the order does contain a compliance schedule covering a time interval of several years, the order has the attributes of a variance. Also, a variance is appropriate in view of the evidence in the Record showing that there are violations of the emission standards (CEI Exhibit No. 6-B) and in view of the fact that it is reasonable to assume that it will take some time to modify the source or to install abatement equipment. As in the case of SO_2 abatement, Section 3704.05 requires compliance with the emission standards for particulate matter or that the operator of the source be a holder of a variance issued pursuant Section 3704.03(H) of the Revised Code. The only way the Lake Shore plant could lawfully remain in operation is to be operating under

a variance with an appropriate compliance schedule which is in conformity with the conditions of Section 3704.03(L) and Regulation EP-32-03.

It is to be noted that Counsel for Appellant CEI has stated that an agreement in principle has been reached between CEI and the U.S. EPA - Region V calling for the conversion of some of the boilers of the Lake Shore plant to oil. The agreement calls for the achievement of compliance with Regulation AP-3-11 by December, 1977. (Board's Record, Item FFFFFF at 2). The other portion of the Lake Shore plant, which is not being converted to oil, is already in compliance with Regulations Ap-3-11 (Tr. 3544, 4188). Also noted is a statenent by the counsel for CEI that there are two plants where Regulation AP-3-14 have been applied, the Canal Road and the East 20th Street plants. These two plants are using low sulfur fuel in an effort to comply with Regulation AP-3-14. (Board's Record, Item GGGGG at 14). The fourth assignment of error of CEI is overruled insofar as the contention that an unconditional variance from Regulation AP-3-11 may be appropriate.

IX

During the proceedings before the Hearing Panel, the City of Cleveland presented a control strategy to partially abate particulate and SO_2 emission during adverse meteorological conditions. (City of Cleveland Exhibit No. 1). The Hearing Panel correctly concluded that this proposal was not an appropriate response to the issues in question. The Hearing Panel also concluded on the basis of joint applicants' Exhibit No. 24 that the ambient air quality with respect to SO_2 did not justify the installation of FGD equipment at the City of Cleveland plant. However, the Hearing Panel did not find that the installation would

be economically unreasonable. (Director's Record, Item 3 at 369-372). The air quality data which appear in joint applicants' Exhibit No. 24 is the same as that which appear in CE"s Exhibit No. 4 and has been discussed above. These data show widespread violations of the state ambient air quality standards, for SO_2 in the Cleveland area. Also, NOLA's Exhibit No. 2 shows that the emission of sulfur dioxide by the City plant is in violation of Regulation AP-3-14. It is the opinion of the Board that a variance should be issued to the City requiring compliance with Regulation AP-3-14 within a reasonable time.

Estimates of what may be considered a reasonable time are given in OEPA Exhibit No. 7. This document is the record of hearings conducted by the U.S. EPA concerning power plant compliance with sulfur oxide emission regulations. It is stated in that document that witnesses with experience in the actual installations of FGD systems testified that it took from 27 to 36 months to complete such an installation; estimates by the vendors ranged from 30 to 36 months and estimates by the utilities and their consultants ranged from 36 to 48 months. (OEPA Exhibit No. 7 at 63). These estimates do not apply to the time it may take to switch from one type of fuel to another, i.e. from coal to oil, nor do the estimates apply to the time it may take to switch to a low sulfur fuel. Therefore, on the basis of the evidence in the Record the Board concludes that a reasonable time to comply with the sulfur dioxide emission regulations, starting from no compliance program at all, should be no more than 36 months and very preferably shorter.

X

If the main issue of this appeal could be summed up in one phrase it would be as follows. If there is a

significant probability that a great number of the people of Ohio are being placed in a position of being endangered by air pollution, the health of the people of the State of Ohio must be given the supreme consideration.

XI

The Board makes the following finding of fact:

(1) The Northern Ohio Lung Association (NOLA) was a party to the proceedings before the Director and therefore had standing to bring the present appeal pursuant Section 3745.04 of the Revised Code for the review of the Director's order of December 12, 1974, as said order applies to the Lake Shore plant of the Cleveland Electric Illuminating Company (CEI) and the City of Cleveland Lake Road plant.

(2) The Cleveland Electric Illuminating Company had joined several other utility companies in a joint appeal of the Director's order of December 12, 1974, however CEI voluntarily dismissed itself from this appeal, except with respect to the Lake Shore plant which NOLA was also appealing. Since CEI did not substantially support the findings of the Director, this party could not be denoted as an appellee therefore CEI was retained as an appellant in this appeal.

(3) Although the City of Cleveland did dismiss itself as an appellee, because it did not substantially support the findings of the Director, NOLA did perfect its appeal with respect to the City of Cleveland's plant and therefore the City cannot be relieved from the legal requirements of the Board's ruling or the Director's order merely by not participating in the appeal.

(4) Section 3745.05 of the Revised Code says that if an adjudication hearing was conducted by the Director in accordance with Sections 119.09 and 119.10 of the Revised Code then the Board is confined to the Record, as certified to it by the Director, unless a request for additional evidence has been granted. In order for the Director to conduct an adjudication hearing in accordance with Section 119.09 of the Revised Code it is necessary for him to fulfill the requirements with respect to notice and opportunity to be heard for all the appropriate parties. The processing of the Hearing Examiner's report is not determinative as to whether or not the Board is confined to the Record as certified to it by the Director. In the present appeal the Board was confined to the certified record and such additional evidence as could be properly put before it.

(5) Unless a regulation is in clear conflict with its enabling statute or has not been properly adopted or is unreasonable on its face, the agency must apply this rule as formulated until it is properly amended or repealed.

(6) Section 4 of Amended Substitute Senate Bill No. 370, effective December 21, 1971, states that it is the intention of the General Assembly that the Director comply with the 1970 Amendments to the Federal Clean Air Act. Section 108 of this Act provides for the publishing of Criteria Documents which include all available information or adverse effects upon public health and welfare due to a given air pollutant. Section 109 of this Act provides for the adoption of primary national ambient air quality standards based upon such

criteria and allowing an adequate margin of safety as is necessary to protect the public health. Section 116 of the Act provides the power for the states to adopt more stringent standards.

(7) A comparison of the state ambient air quality standards for sulfur dioxide (SO_2) with the corresponding federal standards and the values given in the federal Criteria Document indicate that the more stringent state standards are lawful and provide a reasonable margin of safety with respect to adverse health effects. This comparison also shows that the federal standards may not even include a reasonable margin of safety.

(8) Dr. Steven Ayres, Physician-in-Chief at the St. Vincent Hospital and Professor of Medicine at the University of Massachusetts testified that a study indicated that adverse health effects for children occur at sulfur dioxide levels below the national ambient air standard; that it is really not known if the national ambient air standard provides an adequate margin of safety; and that there is no known concentration below which there are no adverse health effects. (Tr. 5989-5990, 6029-6031). Dr. John Finklea, Director of the National Environmental Research Center of the Environmental Protection Agency testified that there will be hundreds of excess deaths and hundreds of thousands of excess cases of illness if the national ambient air standards are not met in Ohio; that even if the national standards are met there will be about 10,000 extra asthmatic episodes and about 10,000 days out of which elderly people will be bothered by respiratory disturbances, in other words there will be some adverse

effects on the most susceptible people, the two percent of the population who are asthmatic and twenty-seven percent of older people who have chronic heart or lung disease; these estimates do not include the effect due to fumigation phenomena; and these estimates are based not only upon air quality data for SO_2 but also upon emission data and the concentration of sulfates in the atmosphere of Ohio. (Tr. 6380-6382, 6386-6388, 6399-6400).

(9) The evidence before the Air Pollution Control Board when it promulgated the state ambient air quality standards and the evidence presented before the Hearing Panel is such that a rational person with a responsibility to set ambient air quality standards when acting in a prudent and reasonable manner would conclude that an adequate margin of safety required more stringent standards than the national ambient air quality standards and would therefore opt for the Ohio ambient air quality standards.

(10) The state ambient air quality standards given in Regulation AP-3-02 and the emission standards given in Regulation AP-3-11 (specifying emission regulations of particulate matter from fuel burning equipment) AP-3-13 (specifying emission regulations for sulfur compound from industrial processes), and AP-3-14 (specifying emission regulations for sulfur dioxide from fuel burning equipment) have been adopted in accordance with section 119.03 and sections 3704.03(D) and (E) of the Revised Code. These regulations have never been lawfully repealed or amended as they apply to the sources of which are the subject of this appeal.

(11) The state emission regulations were developed using the rollback model wherein the emissions are reduced by the percentage difference between the ambient air concentrations and the ambient air quality standard. Although the rollback model is very simple, the testimony before the Hearing Panel indicated that this model was used in conjunction with an air quality display emissions model and incorporated population, commercial, and industrial growth factors such that the result was the location of new industry and new sources of air contaminants could be accommodated in the various air quality control regions of the state.

(12) One alternative to the rollback model is the diffusion model which assumes that the distribution of the pollutants in the atmosphere can be described by a Caussian function, however due to the uncertainties in the various parameters which must be used in this function the resulting numerical values if uncalibrated by comparison to actual ambient air data, may be in error by as much as 300 percent. There are no calibrated numerical values given in the Record. The more complicated diffusion model cannot be considered an advance over the simple rollback model and the use of the rollback model is not unreasonable or arbitrary.

(13) On the basis of the testimony and exhibits in the Record there is reliable, probative and substantial evidence that a rational administrative official exercising reasonable prudence could base emission standards upon a rollback model and decline to amend said regulations at this time.

(14) Although the Board knows of no law or regulation which would permit a state implementation plan

to be withdrawn from the Administrator of the Federal EPA, the presently approved Ohio Implementation Plan does not contain a strategy developed by the State to achieve and maintain the national ambient air standard for sulfur dioxide. Nevertheless, Regulation AP-3-14 is a lawful and enforceable emission limitation under Ohio law. Since this regulation is not in conflict with enabling statutes, has been lawfully promulgated and is reasonable, the Director must enforce the regulation as long as it is not less stringent than any corresponding federal law or regulation.

(15) Although the Ohio Environmental Protection Agency is either unable or does not wish to provide any air quality data to be used in these proceedings, there has been air quality data for the Cleveland Air Quality Control Region presented by other parties and accepted into evidence. Ambient air quality data for SO_2 in CEI Exhibit No. 4 shows widespread violations of the state ambient air standard of 60 micrograms per cubic meter as an annual average; Joint Applicant's Exhibit No. 26-I are diffusion model calculations which predict great violations of the state 24-hour ambient air standard, however these values are highly uncertain; and the data given in the Ohio Implementation Plan also shows violations of both the annual average standard and the 24-hour standard for the year 1970; OEPA Exhibit 22-3 indicates that the State of Ohio is in that region of the country where the concentration of sulfates in the atmosphere is the highest.

(16) Testimony of experts before the Hearing Panel showed that sulfur dioxide emitted into the atmosphere is converted to fine sulfate particles which remain in the atmosphere a long time and travel over great distances; these particles if inhaled remain in the lungs for a long time; though toxicological studies and epidemiological studies show that sulfates are more injurious to health than sulfur dioxide. There is testimony and evidence in the Record which indicate that there may be no threshold value for the concentration of sulfates below which no adverse health effects occur.

(17) The evidence shows that the sulfate concentrations in the ambient air threaten to endanger the health and welfare of the people of Ohio and that these sulfates are formed from sulfur dioxide which is emitted into the atmosphere and that this evidence is based not only on ambient air concentrations of sulfur dioxide but also on emission data and concentrations of the sulfates themselves.

(18) The Director stated in his Order of December 12, 1974 that the Hearing Panel used an overly restrictive definition of technical feasibility and that the appropriate definition is that "an adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can be reasonably expected to serve the interest of pollution control without becoming exorbitantly costly in an economic or environmental way." *Essex Chemical v. Ruckelshaus*, 5 ERC 1820, 1825 (D.C. Cir., 1973). In view of the evidence presented concerning the Paddy's Run Station and the Mitsui Aluminum Company operation and the other evidence in the Record, and taking into consideration the above definition of technical feasibility, the Director's holding that

the availability of scrubber systems for the use on some of the Ohio Utility boilers is not an obstacle to proceeding with enforcement action is reasonable and lawful.

(19) The Hearing Panel concluded that when considering such concepts as "economic reasonableness and technical feasibility" as required by Section 3704.03(H) and (S) of the Revised Code the conclusion reached by such consideration must not conflict with the primary purpose of protecting the public health.

(20) The Director's Regulation, AP-2-02 states that all his regulations shall be construed in such a manner as to maintain levels of air quality which are consistent with the protection of the health and welfare of the people of the State of Ohio.

(21) Section 3704.04 of the Revised Code requires that actions on permits and variances must be in accordance with, among other statutes, Chapter 3745 of the Revised Code. Section 3745.011 provides in part that it is the intent of the General Assembly that the Ohio Environmental Protection Agency shall, prevent and abate pollution for the protection and preservation of the health, safety, welfare, and property of the people of the state; administer the air and other natural resources of the state for the benefit of the people of the state; operate the state government in ways designed to minimize environmental damage; and provide for the enforcement of the right of the people to environmental quality consistent with human health and welfare.

(22) When Chapter 3704 is read in conjunction with Regulation AP-2-02 and Section 3745.011 of the Revised Code as required, the considerations of technical feasibility and economic reasonableness must be subordinated to those benefits to the people of the State which concern health and welfare, namely, whether the "emissions . . . do not endanger or threaten to endanger human health . . . ." (3704.03(H) of the Revised Code).

(23) In the context of environmental law, the term "endangering" is to be used in a precautionary or preventative sense; evidence of potential harm as well as actual harm comes within the scope of this term; "endanger" means harm is threatened no actual injury need occur; danger is a risk and can only be decided by an assessment of risk; risk may be assessed from suspected but not completely substantiated relationships and trends among facts. *Reserve Mining v. U. S.*, 514 Fed.2d 492, 7 ERC 1618 (8th Cir. 1975). Since Ohio law requires consideration that emissions do not "threaten to endanger human health"—threaten to threaten—the Director is required by State law to give the utmost consideration to possible risk to human health.

(24) The term "air pollution" is defined in terms of threat to be injurious to human health. Section 3704.01(B).

(25) Section 3704.05 prohibits any person from emitting air pollution in violation of any lawfully adopted emission standard without being a holder of a variance issued according to State law. Section 3704.03(H) and Regulation EP-32-03 require that

no variance shall be for a period that exceeds one year; and Regulation EP-32-03(C) requires that each variance contain a date upon which compliance with all applicable statutes and regulations will be achieved. The Director failed in his Order of December 12, 1974 to issue variances with compliance schedules for the abatement of sulfur dioxide for those sources which are the object of this appeal, therefore, the assignments of error of NOLA are sustained.

(26) Section 119.09 of the Revised Code requires that the Director state in an Order the reasons why the Hearing Panel's recommendations where either modified or disapproved. The Order of December 12, 1974 gives ample and sufficient reasons why the Director rejected Recommendations 1 through 7 of the Hearing Panel and why Recommendation 8 was modified. There is no expressed requirement in Section 119.09 of the Revised Code that the Director respond to any Findings of Fact or Conclusions of Law which the Hearing Panel may have presented. Therefore, the Director did not violate this statute.

(27) Regulation EP-40-26 requires that if the Director disapproves or modifies the recommendation of the Hearing Panel he shall state in writing findings of fact and conclusion of law together with the reasons for not adopting the recommendations of the Hearing Panel. An examination of the Order of December 12, 1974 shows that extensive and detailed reasons are given for rejecting and modifying the Hearing Panel's recommendation. However, these reasons are not arranged in some sort of numerical list of findings of fact and conclusions of law. Nevertheless, Parts I-IV of the Order of December 12, 1974 do contain what can be reasonably and lawfully considered findings of fact and conclusions of law therefore the Director has substantively complied with Regulation EP-40-26. The first assignment of error of CEI is overruled.

(28) There is no basis in Ohio law for rulemaking by adjudication; in fact adjudications are the result of the application of laws or rules to a particular fact situation by a tribunal where such laws and rules are usually considered to be rigid and unchanging. *Blue Cross of Northwest Ohio v. Superintendent of Insurance,* 40 Ohio App. 2d, 285, 319 N.E.2d 212, 216, 217. The record clearly indicates that the proceeding before the Director was always intended to be an adjudication, therefore, the Director's rejection of the Hearing Panel's call for rulemaking in Recommendation 1 through 6 is lawful and reasonable. CEI's second assignment of error is overruled.

(29) There is no basis in state law or in the Director's regulations for an unconditional variance. To the contrary, both statute and regulations require that variances contain certain conditions among which are the limitation to a duration of the variance to no more than one year after which renewals are necessary and the inclusion of a compliance date by which the emission will be in conformance with all applicable laws and regulations. The third assignment of error of CEI insofar as it is contended that an unconditional variance be issued is overruled.

(30) Section 3704.03(S) of the Revised Code provides for the issuance of compliance orders so that certain sources may be brought into compliance with applicable emission standards. This section is not a loophole for Section 3704.03(H) of the Revised Code and orders issued pursuant Section 3704.-03(S) are to be complied with immediately or in a reasonably short time. This section has no provision for the issuance of permits or variances and does not allow for the continued operation of a source in violation of any applicable statute or law.

(31) Notwithstanding the ambiguous wording on Page 33 of the Director's Order of December 12, 1974 this Order does contain a compliance schedule and therefore have the attributes of a variance. The variance is appropriate in view of the evidence in the Record showing violations of the emission standards for the Lake Shore Plant (CEI Exhibit No. 6-B). The fourth assignment of error of CEI is overruled insofar as the contention that an unconditional variance from Regulation AP-11 may be appropriate.

(32) Evidence in the Record shows that the omission of sulfur dioxide from the City of Cleveland plant is in violation of Regulation AP-3-14 (NOLA Exhibit No. 2) also evidence in the Record shows that the CEI Lake Shore Plant is in violation of the state emission regulations for sulfur dioxide. (CEI Exhibit No. 6-B,C).

(33) On the basis of hearings conducted by the Federal EPA where testimony was taken from witnesses with experience and actual installation of flue

gas desulfurization (FGD) systems, from vendors of these systems, and from utilities and their consultants it is concluded that a reasonable time to install sulfur dioxide abatement equipment should be no more than 36 months.

XII

Based on the findings reached by the Board in this appeal, the Board makes the following order:

Within thirty (30) days of receipt of this Order the Director is to modify the Order of December 12, 1974 such that;

(1) A variance is issued to the Cleveland Electric Illuminating Company whereby the Lake Shore Plant is to be brought into compliance with Regulation AP-3-14 as soon as is expeditious and in no case later than 36 months from the issuance of said variance;

(2) The City of Cleveland is to be issued a variance whereby the Lake Road Station Plant is to be brought into compliance with Regulation AP-3-14 as expeditious as possible but in no case later than 36 months after the issuance of said variance.

(3) The Director's Order of December 12, 1974, Page 33 *et seq.* is to be modified such that it is clear that the Cleveland Electric Illuminating Company has been granted a variance for the Lake Shore Plant to compliance with the particulate regulations of Chapter AP-3.

The Board, in accordance with Section 3745.06 of the Revised Code and EBR-§7-01(A) informs the parties that:

Any party adversely affected by an order of the Environmental Board of Review may appeal to the Court

of Appeals of Franklin County, or, if the appeal arises from an alleged violation of law or regulation, to the court of appeals of the district in which the violation was alleged to have occurred. Any party desiring to so appeal shall file with the Board a Notice of Appeal designating the order appealed from. A copy of such notice shall also be filed by the Appellant with the court, and a copy shall be sent by certified mail to the Director of Environmental Protection. Such notices shall be filed and mailed within thirty days after the date upon which Appellant received notice from the Board by certified mail of the making of the order appealed from. No appeal bond shall be required to make an appeal effective.

THE ENVIRONMENTAL BOARD OF REVIEW
/s/ STANLEY WEISSMAN
Stanley Weissman, *Chairman*
/s/ RICHARD S. MCCUTCHEN
Richard S. McCutchen, *Vice-Chairman*

Entered in the Journal of the Board this 27th day of October, 1976, at Columbus, Ohio.

Copies to:

Northern Ohio Lung Association [Certified Mail]
The Cleveland Electric Illuminating Company [Certified Mail]
Ned E. Williams, Director [Certified Mail]
Ohio Edison Company [Certified Mail]
East Palestine Light and Power Company [Certified Mail]
James C. Carroll, Esq.
James M. Friedman, Esq.
Michael L. Hardy, Esq.
Michael N. Tousey, Esq.
A. Mark Segreti, Jr., Esq.
Van Carson, Esq.
David E. Northrop, Esq.
Wilson W. Snyder, Esq.

CERTIFICATE OF SERVICE

I hereby certify that a copy of The Cleveland Electric Illuminating Company's "Supplemental Appendix To Appellant's Memorandum In Support Of Jurisdiction" was served upon counsel of record by placing a copy thereof in the United States Mails, postage prepaid, on the 15th day of February, 1978, addressed as follows:

DAVID E. NORTHROP,
Assistant Attorney General
30 East Broad Street
17th Floor
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A. MARK SEGRETI, JR., ESQ.
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Toledo, Ohio 43603

/s/ MICHAEL L. HARDY
Michael L. Hardy

APPENDIX E

Final Findings and Order of the Director of the Ohio Environmental Protection Agency

(Entered December 13, 1974)

Case No. 73-A-P-120

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Cleveland Electric Illuminating Company
Lake Shore

DIRECTOR'S FINAL FINDINGS AND ORDERS

1318000245

B001	Babcock & Wilcox Open Pass Boiler Boiler No. 91
B002	Babcock & Wilcox Open Pass Boiler Boiler No. 92
B003	Babcock & Wilcox Open Pass Boiler Boiler No. 93
B004	Babcock & Wilcox Open Pass Boiler Boiler No. 94
B005	Babcock & Wilcox FM-10-79 Boiler Package Boiler
B006	Combustion Engineering CCRRT Boiler No. 18 Boiler
B007	General Motors MU 40 Boiler Diesel No. 1

B008	General Motors MU 40 Boiler Diesel No. 2
T001	Fuel Oil Storage 5,000,000 Gallon Tank No. 1
T002	Fuel Oil Storage 5,000,000 Gallon Tank No. 2

Pursuant to Sections 119.06 et seq. of the Ohio Revised Code and regulations of the Ohio Environmental Protection Agency, an adjudication hearing was held in the matter of Consolidated Electric Utility Cases from March 4, 1974 to July 25, 1974. The Hearing Examiners issued their report and recommendations on September 6, 1974. Upon review of the report and recommendations and the record of the case, the Director of the Ohio EPA makes the attached Findings and Orders.

PART I

HISTORY OF THE CASE

A. *Background*

This consolidated adjudication hearing was held pursuant to the provisions of Chapter 119 of the Ohio Revised Code and other pertinent legislation. It involved eight (8) investor owned electric utilities, one (1) consumer owned electric utility, and four (4) municipal electric utilities. These cases were consolidated because of common issues of fact and law critical to a decision as to the granting of variances or operating permits by the Ohio Environmental Protection Agency to each of these companies. The individual cases which comprised this consolidated proceeding are as follows:

Cardinal Operating Company

Unit No. 1—Case No. 73-A-V-132

Unit No. 2—Case No. 73-A-V-133

Cincinnati Gas and Electric Company

Miami Fort Power Station—Case No. 73-A-V-144

West End Power Station—Case No. 73-A-V-149

W. C. Beckjord Station—Case No. 73-A-P-156

Cleveland Electric Illuminating Company

Lake Shore Plant—Case No. 73-A-P-120

Ashtabula Plant—Case No. 73-A-V-146

Avon Lake Plant—Case No. 73-A-V-147

Eastlake Plant—Case No. 73-A-V-148

Columbus and Southern Ohio Electric Company

Pickaway Generating Station—Case No. 73-A-V-137

Conesville Generating Station—Case No. 73-A-V-138

Poston Generating Station—Case No. 73-A-V-139

Dayton Power and Light Company

Frank M. Tait Station—Case No. 73-A-V-152

Ohio Edison Company

Gorge Plant—Case No. 73-A-P-126

R. E. Burger Plant—Case No. 73-A-V-128

Toronto Plant—Case No. 73-A-V-129

W. H. Sammis Plant—Case No. 73-A-V-130

Niles Station—Case No. 73-A-V-134

Edgewater Station—Case No. 73-A-V-135

Norwalk Station—Case No. 73-A-V-136

North Avenue Steam Station—Case No. 73-A-V-140

Rockaway Steam Plant—Case No. 73-A-V-141

Mad River Station—Case No. 73-A-V-142

Beech Street Steam Plant—Case No. 73-A-V-143

Ohio Power Company

Tidd Plant—Case No. 73-A-V-131

Woodcock Plant—Case No. 73-A-V-153

Philo Plant—Case No. 73-A-V-155

Muskingum River Plant—Case No. 73-A-V-154

Ohio Valley Electric Corporation

Kyger Creek Plant—Case No. 73-A-V-150

Toledo Edison Company

Bay Shore Plant—Case No. 73-A-V-122

Acme Station—Case No. 73-A-V-151

City of Cleveland Division of Light and Power—Case No. 73-A-P-123, Case No. 73-A-V-127

Dover Municipal Power Plant—Case No. 73-A-P-145

East Palestine Light and Power Company—Case No. 73-A-V-159

Painesville Municipal Electric Company—Case No. 73-A-V-157

Additionally it should be noted that Buckeye Power has a partial ownership interest in the Cardinal Generating facility.

Applications for variances or operating permits were submitted by all of the applicants to the Ohio Air Pollution Control Board, the predecessor of the Ohio Environmental Protection Agency. In May, 1973, the Director issued proposed variances or operating permits to the applicants. Challenges to these actions in the form of requests for adjudication hearings pursuant to Chapter 119 and the Agency's enabling legislation were subsequently filed.

Prior to commencement of the consolidated hearings in this matter, a Motion for Leave to Intervene was filed

by the Public Utilities Commission of Ohio on February 22, 1974. On February 28, 1974 the panel of three Hearing Examiners, chaired by the Chief Hearing Examiner, who had been assigned to hear these consolidated cases rendered their decision denying the Motion for Leave to Intervene. The gist of this Decision was that Procedural Rule EP-40-21(F) provided that persons other than parties or witnesses presented by parties might present oral or written arguments for the record and file proposed findings and orders, conclusions of law or briefs for consideration by the Hearing Examiners. The Motion filed by the Public Utilities Commission of Ohio and the accompanying statement indicated that the Commission was not seeking Leave to Intervene either to present material evidence or to cross-examine witnesses, but rather to observe the proceedings and examine the evidence so that it might determine which position to take. The Examiners concluded that procedures existed under the previously cited Procedural Rule enabling the Public Utilities Commission of Ohio to participate in this manner and the intervention was an inappropriate remedy. An interlocutory appeal of this Decision to the Director of the Ohio Environmental Protection Agency was refused in a letter from the Director to counsel for the Public Utilities Commission of Ohio.

There were four (4) citizens who filed objections pursuant to the provisions of Revised Code Section 3745.07. One of the original four objectors, Mrs. Joseph Fetchik, submitted to the Chief Hearing Examiner, on February 12, 1974, a letter withdrawing her objection for the stated reason that due to a recent illness she was unable to attend any hearings in this matter. Additionally, a second objector, Mrs. Elizabeth Gemberling, Executive Director of the American Lung Association of Summit County, submitted a written statement which was treated by the Hearing Panel as the expression of an opinion pursuant to

Procedural Regulation EP-40-21(F) rather than documentary evidence. This conclusion was reached because Mrs. Gemberling was not in attendance at the hearing and there would have been no opportunity to cross-examine her as to any factual assertions made in this written submission. The other two objectors did actively participate. Mrs. Patricia Smith representing the Air Conservation Committee of the Northern Ohio Lung Association participated in regard to presentations involving Cleveland Electric Illuminating Company and the City of Cleveland. Mr. Charles Miller, an attorney representing himself as an objector, participated in the presentation involving the City of Cleveland.

Hearings in these consolidated proceedings commenced on March 4, 1974. The evidentiary portion of the hearing was concluded on May 23, 1974. Oral argument by counsel involved in these proceedings was held on July 25, 1974. The transcript comprises some 6,830 pages. Additionally, an extensive number of exhibits, many of them lengthy technical reports, were introduced. Extensive briefs and reply briefs exhaustively treated the legal and factual issues involved in these cases.

B. *Issues Raised at the Hearing*

The contentions of the utility applicants as a group and the Ohio Environmental Protection Agency revolve around certain general areas of concern. The utility applicants contended that Ohio's ambient air quality standards and emission regulations are improperly drafted and did not take into account considerations such as health effects associated with various ambient levels of pollutants, dispersion of pollutants, wind speed, topography and other considerations which they argued are mandated by federal law and regulations as well as relevant portions of the

Ohio EPA enabling legislation. The Agency contended that the present Ohio ambient air quality standards are necessary to protect the health of Ohio's citizens and it also contended that the presently formulated emission standards are necessary in order to achieve the required ambient levels. The joint utility applicants also contended that measured ambient sulfur dioxide levels indicate no need for emission control in many parts of the state. Ohio EPA contended that installation of flue gas desulfurization equipment (FGD) or reduction in sulfur content of fuel is necessary for twenty plants.

The joint utility applicants further contended that emission control devices for the removal of sulfur oxide, generically designated as flue gas desulfurization systems, have not been adequately demonstrated to a sufficient degree to require the investment of considerable sums of money estimated to be in excess of $2 billion to control sulfur oxide emissions by Ohio's electric utilities. Ohio EPA contended that such emission control systems have been adequately demonstrated and that they are the only ways to assure achievement of requisite ambient levels. The joint utility applicants argued that insufficient quantities of limestone are available to permit widespread operation of FGD systems which require it in Ohio. Ohio EPA asserted that adequate supplies are available or can be developed.

The joint utility applicants were also critical of a requirement that they install flue gas desulfurization equipment because the lime-limestone systems produce a sludge which must be thickened or hardened and then disposed of in some land area specifically set aside for this purpose. The utility applicants argued that the additional costs required by sludge disposal make the utilization of flue gas desulfurization unreasonable in light of the

benefits to be derived particularly since they also contended that an alternative system for achieving ambient air quality exists. Ohio EPA argued that methods for sludge disposal exist and have been demonstrated. It contended that the utility applicants are able to find methods to reasonably dispose of this sludge and that the trading of a solid waste disposal problem for an air pollution problem is environmentally acceptable.

The joint utility applicants contended that utilization of tall stacks, perhaps in combination with so-called intermittent control systems which respond to periodically high degrees of emissions and unfavorable meteorological conditions, will achieve the required ambient levels and are a reasonable means of achieving compliance with State and Federal air pollution control statutes and regulations. Ohio EPA contended that the utilization of tall stacks permits sulfur dioxide to remain in the ambient air for substantially longer periods and enhances its conversion to so-called secondary pollutants such as acid sulfate aerosols which Ohio EPA contended are as harmful if not more harmful than sulfur dioxide itself. Ohio EPA also contended that the utilization of tall stacks is not legally permissible in this situation because flue gas desulfurization is an adequately demonstrated emission control technique and the Clean Air Act Amendments of 1970 required an attempt to utilize emission controls in order to achieve ambient levels before other methods are approved. The joint utility applicants disagreed and contended that the primary purpose of federal and state legislation is to achieve ambient levels of air quality. They contended that any method which permits an applicant to do so is permissible.

All parties agreed that low sulfur coal and fuel oil are in short supply. Utilization of fuel switching is not

a viable control strategy for most electric utilities at this time. Ohio EPA contended, however, that washing or blending of coal can significantly reduce the sulfur content of fuels now in use to 3%. Utility applicants expressed doubts.

Finally, all parties agreed that there is not present need in Ohio for nitrogen oxide emissions standards or ambient standards and they both recommended the revocation of existing regulations.

C. *Hearing Panel's Report*

On September 6, 1974 the Hearing Panel filed an extensive 417 page report and recommendations which explained in great detail the evidence presented at the hearing and the reasoning behind their recommendations to the Director.

The recommendations of the Hearing Panel were the following:

1. The Hearing Panel recommends that the Director adopt the present Federal primary annual average and twenty-four hour maximum ambient air quality standards for sulfur dioxide and particulate matter and repeal Ohio's existing ambient standards for those pollutants.

2. The Hearing Panel recommends that the Director adopt a county by county classification and realistic emission limitations upon emissions of sulfur dioxide and particulate matter based upon accurate ambient data for each county and the most sophisticated diffusion modeling techniques presently available. Existing priority classifications and emission regulations for these pollutants should be repealed.

3. The Hearing Panel recommends that Regulation AP-7-06 be repealed.

4. The Hearing Panel recommends that the Director repeal Regulation EP-10-06 [AP-2-06] and adopt a new regulation clearly expressing the means for attaining the objectives which the present regulation seeks to attain.

5. Recommendations 1-4 should be implemented through utilization of ORC Chapter 119 rule-making procedures.

6. The Hearing Panel recommends that no compliance orders be issued as a result of this proceeding until Recommendations 1-4 have been implemented.

7. In the event that the Director should determine that installation of FGD systems appears necessary at any plant involved herein, the Hearing Panel recommends that the Director obtain information regarding the Bruce Mansfield and NIPSCO scrubber systems in 1976 before issuing the draft order attached hereto. (See the Hearing Examiners' report for the orders.)

8. In the event that the Director determines that particulate control measures must be implemented now, the Hearing Panel recommends issuance of the draft order attached hereto. (See the Hearing Examiners' report for the orders.)

PART II

ADEQUATE DEMONSTRATION OF TECHNOLOGY

The major focus of attention in the hearing was on the availability of flue gas desulfurization equipment for use on electric utility facilities. The Hearing Examiners' Report concluded that "Flue gas desulfurization has not been demonstrated to be a method of sulfur dioxide control presently available for implementation by the Ohio Electric Utilities." This conclusion is combined with conclusions as to the appropriateness of the Agency's regulations for sulfur oxides, nitrogen oxide and particulate matter to form the recommendation that no compliance orders be issued until regulations have been revised and until information has been obtained regarding the demonstration of new scrubber systems. The Director rejects the Report's conclusion (No. 15) as to the technological feasibility of flue gas desulfurization.

A. *Definition of Sufficient Demonstration*

The Hearing Examiners' Report proceeds from an overly restrictive definition of what constitutes a sufficient or adequate demonstration of technology to an unacceptable conclusion. The definition accepted by the report is that presented by the American Academy of Engineering Ad Hock Panel: the more or less continuous operation for one year of a 100 megawatt or greater unit. The Hearing Examiners may also have been relying upon the additional condition specified by one witness for the joint applicants: that such a unit, after operating continuously for one year, should show no significant corrosion or erosion problems. This definition of a sufficient demonstration of control technology was the only one presented or considered in the Hearing Examiners' Report. In the

Director's opinion, such a definition is far too restrictive to be appropriate for an enforcement program in a relatively new field such as environmental control. To a large extent, the use of this sort of definition would obligate an enforcement agency to rely upon the willingness of the regulated entities to install and test such systems for at least one year at their own discretion before proceeding to further enforcement action. The electric utilities in Ohio cannot reasonably be expected to take such action of their own free will, if the end result of this action will be still greater and more expensive requirements placed upon them.

A more adequate set of criteria for the sufficient demonstration of technology was propounded by the Court of Appeals for the District of Columbia Circuit in *Essex Chemical v. Ruckelshaus,* 5 ERC 1820. (1973). The court said in this opinion that

> "An adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interest of pollution control without becoming exorbitantly costly in an economic or environmental way."

Moreover, the Circuit Court decision states that pollution control equipment does not need to be routinely achieving the air quality standard within the affected industry prior to promulgation of rules. This definition does not require the pollution abatement equipment to be free of uncertainty before its adoption as a control method. Instead, the technology must show the promise of increasing reliability and increasingly efficient control of pollutants. In the contest of the Clean Air Act of 1970, which mandates achievement of air quality standards

within a very short period of time, enforcement agencies must be allowed to rely upon some control methods that have not been proven to be absolutely certain and absolutely free of defects in order to achieve this goal.

B. *Sufficient Demonstration*

The evidence presented in the Hearing Examiners' Report and in the record of the hearing indicates that over the past few years flue gas desulfurization equipment has shown marked increases in reliability and in efficiency of control in demonstrations both in the United States and overseas. The Director feels that the improvements which have been experienced provide sufficient evidence that flue gas desulfurization technology can meet the criteria provided in the District of Columbia Circuit Court opinion.

Scrubber systems installed in the United States and overseas have admittedly experienced many operational problems. But even the systems which are widely acknowledged to have been unsuccessful showed improvements in reliability over time. The record of the Meramac and the Kansas Power and Light—Lawrence Station scrubbers shows the elimination of some of the plugging and corrosion problems which were experienced in the early months of operation of those systems. The Lawrence Station scrubbers are said to have achieved "fairly good" reliability by early 1971 (Report - page 119). Modification of similar systems at the Hawthorne station of Kansas City Power and Light to "tail end" systems achieved still further improvements in performance. The "tail end" scrubbing system installed at the Will County Station of Commonwealth Edison in early 1972 experienced the elimination of scaling problems and an availability rate which at times approached 80%. In this instance and in some

of those which follow it in the Report, a careful reading will show that the scrubbers were available for use at least as much as the boilers were. This was often true, for instance, in the operation of the magnesium oxide system installed at the Mystic Station of Boston Edison. This system experienced very erratic performance, but its overall reliability was rated as "good" by a utility witness. The erratic performance of the scrubber system was attributed in many cases to the performance of the boiler system rather than to defects in the scrubber system itself.

Perhaps the highest level of reliability yet achieved in a scrubber system is that experienced by the Paddy's Run station of Louisville Gas and Electric. This system, which has been in operation since April of 1973, has experienced "no particularly significant problem areas" (page 132) in its operation. The downtime experienced by this system has been due to boiler tube failures or to non-operation of the boiler to which this system is attached. It may be questioned whether the utility boiler system, which has been installed and in use for many years, would actually meet the tests of the criteria supplied by the American Academy of Engineers.

The efficiency of removal of flue gas desulfurization systems has shown similar increases over time. The Meramec and Kansas Power and Light systems, for instance, achieved a removal efficiency of between 60 and 70%. Later systems have achieved much higher removal efficiencies, notably the Wood River installation's catalytic oxidizer system, with an 85% removal rate, and the various carbide sludge scrubber systems, which appear to achieve removal rates of between 80 and 93%.

With numerous examples of utility-sized scrubber systems operating in the United States and elsewhere, and

considering that problems of removal efficiency and reliability are being worked on and solved as experience with the systems increases, there is no doubt that scrubber systems such as those presently in use will be used to abate sulfur oxide emissions from these types of sources. Those doubts which do remain are much less significant: how to deal with specific problems in specific installations, location of supplies of chemical materials, and the like. Existence of problems of this magnitude does not prove that flue gas desulfurization systems are not adequately demonstrated within the terms of the *Essex* definition. Only a very real question as to whether scrubber systems could be at all appropriate for use in sulfur oxide abatement at any place could justify waiting for a full demonstration before ordering such equipment. In fact, there seems no reason to suppose that most of the smaller problems remaining could not be worked out before such systems were in use on the boilers belonging to the Ohio utilities, even if such systems were ordered immediately. In the Director's opinion, therefore, there would be still less reason for waiting for further demonstrations before proceeding with enforcement action. The availability of scrubber systems for use on some Ohio utility boilers is therefore not in itself an obstacle to proceeding with enforcement action. Recommendation 7 of the Hearing Panel is therefore rejected.

PART III

APPLICATION OF THE STATE REGULATIONS

A. *Legal Constraints on Decision Making by the Director*

The Director is bound by law and his own regulations to base his final decision in any adjudication hearing solely on the evidence presented in the record. When deciding the outcome of an adjudication hearing, the Director can

not act in a legislative (rule-making) capacity. He must act as judge. Thus, he must be both fair and impartial to all parties. As a judge he must carefully weigh the total body of the evidence. If one party in the case presents a more persuasive argument than another party, and if the one party meets its allocated burden of proof, then that party should prevail. The Director must also give weight to the Hearing Examiners' opinion concerning the outcome of the case, for it is they who have heard all of the evidence and are responsible for the actual conduct of the hearing. Thus the Director must base his final decision on the weight of the evidence. In this regard it should be noted that the Director's final order concluding this consolidated case or any other adjudication case should not be viewed as an absolute indicator of the Director's future policy or rule making position concerning the subject matter of the adjudication.

B. *Allowable Scope of Attack by a Party on Regulations During an Adjudication Hearing*

In determining the scope of questions which could be raised at the consolidated hearing the Hearing Examiners misinterpreted (1) the principles set down in *Battles v. The Ohio Racing Commission,* 52 Ohio App. 2d 530, 230 N.E. 2d 622 (1967) and (2) the intent of the Director regarding the scope of the hearing.

The Hearing Examiners on Pages 21 and 22 of their report seemed to imply that the electric utility companies had the right to challenge Ohio's ambient air quality standards in an adjudication hearing. They indicated that since the utilities had appealed Chapter EP-11 to the Environmental Board of Review after adoption by the Director and are currently making a Federal Clean Air Act Section 307 challenge of the Ohio Implementation Plan

that the utilities can, in the context of adjudication, make a general challenge of the regulations. This is a mistaken conclusion of law by the Examiners. The scope of an adjudication hearing does not include a challenge of the general reasonableness of the regulation but includes only a challenge of the reasonableness of the particular application of the regulation to the parties involved in the adjudication. This is the conclusion of the *Battles* case (supra), which carefully distinguished between review of regulations in general, which is properly raised through appeal of the rules or declaratory judgment (see the recent decision of *Cincinnati Gas & Electric Co. v. Whitman,* Case No. 74-AP-151, Tenth District Court of Appeals (Franklin Cty., 1974)), and review of regulations as applied. The Hearing Examiners did not abide by the complete holding of the case.

The Hearing Examiners also misconstrued the Agency's intent concerning the intended scope of the adjudication hearing. The Examiners' report errs in inferring from internal Agency memoranda that "the Director views this proceeding as a vehicle for testing the reasonableness of those [ambient sulfur oxides] standards. Therefore, it devolves upon this Hearing Panel to make such an objective determination." Such was not the Director's intent, as a careful reading of those memoranda will clearly show. The document which is apparently referred to is an internal memorandum from Alan Farkas and Stuart Donaldson dated December 19, 1973 (Joint Applicants' Exhibit #48). On the second page of that document, the following statement is made: "However, it was the general consensus of the meeting that the adjudication hearing itself could legitimately be seen as a policy-making process, albeit of a different sort from what we had been used to. One advantage of relying on the adjudication hearing

to provide the substance of policy is that it will allow us to collect information on a level of detail that was not previously available, and thus to fine tune the final orders more effectively than regulations could be." The context in which this sentence appears is a discussion of the merits of adopting new emissions limitations for sulfur oxides—ambient air quality standards are not mentioned in this section of the memorandum. Nor is there any discussion of particulates. Clearly, the problem which this memorandum addressed, and which the Director intended to resolve through the process of the adjudication hearing, was not the general appropriateness of ambient air quality standards and regulations but the question of how an emission limitation calculated for a large region could not be more finely tuned to account for specific peculiarities affecting the emissions from an individual large source such as an electric utility. Nowhere in that memorandum was it stated that the adjudication hearing was regarded as an appropriate forum in which to make a judgment on the appropriateness of air quality standards. This becomes clear upon reading the third page of the same memorandum on which ambient air quality standards are discussed. The Director decided to retain the present state air quality standards for sulfur oxides. This decision, unlike the decision as to regulations on emissions limitations, was *not* to be (and legally could not be) made subject to the decision of an adjudication hearing. Moreover, in no part of the memoranda referred to is there any discussion of the appropriateness of the state's particulates standards or of the possible use of an adjudication hearing to make policy decisions on those standards. The intent of the Director was then, as it is now, to use the adjudication hearing as a means for arriving at a reasonable and lawful enforcement decision

in the particular cases of the parties to the adjudication—which amounts to policy in its specific application rather than to general policy applied to entities throughout the state. Recommendation 6 of the Hearing Panel is therefore rejected.

C. *General Validity of Chapter AP-3, Regulation AP-7-06 and Regulation EP-10*

The Hearing Panel's recommendations concerned both the general validity of Chapter AP-3, Regulation AP-7-06 and Regulation EP-10, and the specific application of those regulations to the electric utilities who are parties to this consolidated case. The Director is not at liberty to address the general validity of his own regulations in the context of this final findings and order. Regulations may be amended or rescinded only through the procedures established in Section 119.03 of the Ohio Revised Code. Thus, the Director must take the Hearing Panel's recommendations relative to the general validity of the Agency's regulations as advisory only. As the Hearing Panel recognized in Recommendation 5, the Director can not act on Recommendations 1 through 4 through an order in this case.

D. *Nitrogen Oxide Control*

Since Regulation AP-7-06 (EP-14-06) applies only to sources in Priority I areas, and since the Federal Administrator has reclassified all the Ohio air quality regions for nitrogen oxide to Priority III, (39 Fed. Reg. 16344, May 8, 1974) Regulation AP-7-06 imposes no control requirements on the sources subject to this adjudication. No further action is necessary by the parties.

E. *Sulfur Oxide Control*

In most cases, the evidence presented by the Joint Applicants and the discussion of it by the Hearing Examiners is quite complete as to the application of sulfur oxides emissions limitations to particular facilities. Because there is an absence of ambient air quality data in the record showing widespread and serious violations of the ambient air quality standards for sulfur oxides, the requirement that applicants must show unreasonableness in the specific application of regulation has been met. Until new ambient air quality data is collected and analyzed showing violations of the regulations by these sources, it is inappropriate to require use of sulfur oxide control by these sources. Thus, for the above reasons, the Director will not require the Electric Utility Companies to implement sulfur oxide control.

F. *Enforcement of Particulate Standards in Chapter AP-3*

In most cases, the specific reasonableness of the application of the particulate regulation was not adequately addressed by the joint utilities. There is a marked paucity of evidence in support of the claim that some of these facilities are not contributing to violations of ambient particulates standards. The joint utilities thus have not met the burden of proof with respect to proving the unreasonableness of applying the particulate regulations to them. Moreover, in most cases, the Hearing Examiners' Report concludes that the installation or upgrading of a particulate control system in individual facilities would not be economically unreasonable or technically infeasible. Thus for these reasons and the reasons set forth in Section IV below the Director will issue orders requiring particulate control. Recommendation 8 of the Hearing Panel is accepted in general terms, the specific orders appearing at the end of this report.

PART IV

PARTICULATE CONTROL UNDER THE CLEAN AIR ACT IMPLEMENTATION PLAN

A. *The Director is Compelled under the Federal Clean Air Act Amendments of 1970, 42 USC Section 1857 et seq., to Enforce the Approved Portions of the Ohio Implementation Plan.*

1. *History*

On April 15, 1974, the United States Environmental Protection Agency (U.S. EPA) approved the part of Ohio's Implementation Plan relative to the control of suspended particulates 39 Fed. Reg. 13539 (1974). The Particulate Control standards set forth in the Implementation Plan are identical to the particulate control standards which the Ohio Air Pollution Control Board promulgated in Chapter AP-3 of its regulations, and which were subsequently made regulations of the Ohio EPA by Amended Senate Bill 397.

The Clean Air Act Amendments of 1970 (hereinafter the "Act") established a complex system whereby the jurisdiction to control air pollution was divided between the state and federal governments. Certain aspects of the air pollution control effort were vested in the states subject to U.S. EPA supervision. Thus the role of the U.S. EPA in relation to the states is cooperation, supplementation and supervision. The legislative intent of this scheme was to ensure the achievement of national ambient air quality standards while, at the same time, provide a means to respond to local air pollution goals and problems.

Section 109 of the Act, 42 U.S.C. Section 1957c-4(a) mandated the Administrator to establish national primary ambient air quality standards to protect the public health

and national secondary standards to protect the public welfare. These standards set forth the maximum concentrations of air pollutants permitted in the ambient air. Because each state has unique air pollution problems, the Act gave the states primary responsibility to determine the means by which the National Ambient Air Quality Standards would be implemented. Section 110 of the Act, 42 U.S.C. Section 1957c-5, mandated that each state, after reasonable notice and public hearing, adopt and submit to the Administrator a plan which would provide for implementation, maintenance and enforcement of the National Air Quality Standards. After the plan is submitted by the state, the Administrator may approve or disapprove it in whole or in part. After a plan is approved it becomes enforceable by both the state and the federal governments:

> All approved regulatory provisions of each plan are incorporated by reference in this part. Regulatory provisions of a plan approved or promulgated by the Administrator are enforceable by the Administrator and the State, and by local agencies in accordance with their assigned responsibilities under the plan. 40 CFR Section 52.02(d).

2. *The Director, Acting in His Judicial Capacity, Has Under the Supremacy Clause of the United States Constitution a Duty to Apply Federal Law.*

The United States Supreme Court in *Testa v. Katt,* 330 U.S. 386 (1947), made it clear that article VI section 2 of the United States Constitution ("supremacy clause") prevents a state court from refusing to enforce federal law if the state court has "adequate and appropriate" jurisdiction under local law to adjudicate the matter being enforced. The precise question of whether a state government is required to enforce the terms of a federally adopted

state implementation plan was litigated in a recent case in the U.S. Court of Appeals for the third circuit *Commonwealth of Pennsylvania v. U.S. EPA,* 6 ERC 1776 (3rd Cir. 1974). In that case the U.S. EPA, pursuant to Section 110(c)(2) of the Act, 42 U.S.C. Section 1857c-5(c)(2), promulgated a transportation control plan for the state of Pennsylvania. Pennsylvania then sought review under Section 307(b) of the Act alleging, in part, that the U.S. EPA could not constitutionally compel the State to enforce the federally adopted plan.

Before addressing itself to the constitutional issues, the court thoroughly examined the legislative history behind the Clean Air Act Amendments of 1970 to determine whether Congress intended to require the states to enforce implementation plans and to subject the states to federal sanctions if the conditions of the plan are not met. The court concluded that:

> . . . In sum, Congress clearly contemplated that states could be required to implement a transportation control plan, and thus the Administrator's action in promulgating regulations containing such a requirement for the Commonwealth and applying federal enforcement procedures to it was within his statutory authority. supra at 1777, 1778

After examining the policy and the case law under the federal commerce power the court upheld the constitutionality of the Administrator's action. On page 1780 of the opinion the court said:

> After careful consideration, we do not find that the implementation plan here under attack conflicts with the proper functioning of the system of federalism embodied in our Constitution. It is true, of course, that such enforcement may be financially burdensome,

but that fact is irrelevant, for "when Congress does act [under the commerce power], it may place new or even enormous fiscal burdens on the States." *Employees of the Department of Public Health and Welfare v. Department of Public Health and Welfare, supra* at 824 [411 U.S. 279 (1973)]. It is also true that compliance with the plan will require the Commonwealth to exercise its legislative and administrative powers, for that is the means by which a state regulates its transportation system. However, it must not be forgotten that when dealing with the commerce power, "we are guided by practical considerations." *Overstreet v. North Shore Corp.*, 318 U.S. 125, 128 (1943) . . . (supra at 1780)

The court's conclusion was that

> . . . the application of the federal enforcement procedures to the Commonwealth for noncompliance with the regulations contained in the Pennsylvania Transportation Control Plan is a valid exercise of the federal commerce power . . . (supra at 1780)

3. *The Director is Bound Under Ohio Law to Comply with the Provisions of the Federal Clean Air Act Amendments of 1970.*

In 1971, the Ohio General Assembly extensively revised Chapter 3704 of the Ohio Revised Code for the express purpose of putting Ohio into compliance with the Clean Air Act, as amended in 1970. Substitute Senate Bill No. 370 was entitled "An Act to amend sections . . . of the Revised Code relative to the prevention, control, and abatement of air pollution, and to declare an emergency." Subsection 4 of SB No. 370 provides:

> This act is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health, and safety. The reason for such necessity lies in the fact that *immediate action is necessary in order to comply with the 1970 amendments to the Federal Clean Air Act.* Therefore this act shall go into immediate effect. (emphasis added)

The General Assembly's intent is further demonstrated by Ohio Revised Code Section 3745.01(A). The Section grants the Director power under relevant pollution control laws and regulations to:

> Provide such methods of administration, appoint such personnel, make such reports, and take *such other action as may be necessary to comply with the requirements of the federal laws and regulations pertaining to air* and water *pollution control,* public water supply, water resource planning, and waste disposal and treatment. (emphasis added)

Thus, the paramount purpose of the 1970 Ohio Legislation and one purpose of ORC Sec. 3745.01 is to comply with the Federal Clean Air Act.

4. *If the Director Does not Uphold the Terms of the Approved Portion of the State Implementation Plan He can be Subject to Federal Orders under Section 113(a) (1) and (2) of the Act and to Criminal Penalites under Section 113(c) of the Act.*

Any portion of an implementation plan that is approved by the Administrator is directly enforceable by the Administrator under Section 113 of the Act against any violator of the plan, including against the states, thirty days after a violation is discovered:

(1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any requirement of an applicable implementation plan, the Administrator shall notify the person in violation of the plan and the State in which the plan applies of such finding.

If such violation extends beyond the 30th day after the date of the Administrator's notification, the Administrator may issue an order requiring such person to comply with the requirements of such plan or he may bring a civil action in accordance with subsection (b).

(2) Whenever, on the basis of information available to him, the Administrator finds that violations of an applicable implementation plan are so widespread that such violations appear to result from a failure of the State in which the plan applies to enforce the plan effectively he shall so notify the State. If the Administrator finds such failure extends beyond the 30th day after such notice, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such plan (hereafter referred to in this section as 'period of Federally assumed enforcement'), the Administrator may enforce any requirement of such plan with respect to any person . . . 42 U.S.C. Section 1857c-8(a)

If the Director fails to obey an order issued by the Administrator he may be subject to extensive criminal sanctions. Section 113(c) of the Act says:

(c) (1) Any person who knowingly—

(A) violates any requirement of an applicable implementation plan (1) during any period of Federally assumed enforcement, (ii) more than 30 days after having been notified by the Administrator under subsection (a)(1) that such person is violating such requirement, or

(B) violates or fails or refuses to comply with any order issued by the Administrator under subsection (a), or

(C) violates section 111(e) or section 112(c), shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. If the conviction is for a violation committed after the first conviction of such person under this paragraph, punishment shall be a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both . . . 42 U.S.C.A. Sec. 1857c-8(c)

5. *Section 307(b) of the Act Bars Parties from Contesting the Administrator's Action Approving the Implementation Plan in an Enforcement Proceeding.*

Under Section 307 of the Act, 42 U.S.C. Section 1857h-5(b), those persons who object to the Administrator's action adopting an implementation plan must do so in a United States Court of Appeals within 30 days of approval or forever be barred from objecting to the Administrator's action:

(1) . . . A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 110 or section 111(d) may be filed only in the United States Court of Appeals for the appropriate circuit. Any such petition shall be filed within 30 days from the date of such

promulgation or approval, or after such date if such petition is based solely on grounds arising after such 30th day.

(a) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. 42 U.S.C. Section 1857h-5(b)

Thus, Section 307 of the Act prevents parties from asserting the same kind of arguments against federal regulations during state adjudication hearings as were asserted against state regulations in these consolidated cases. Such attacks against federal regulations must be made in a United States Court of Appeals through the procedures established in Section 307.

C. *The Sources Subject to this Adjudication Shall be Required to Comply with the Particulate Emission Requirements of Chapter AP-3.*

For the reasons outlined above, the Director is legally obligated to issue orders requiring the sources subject to this adjudication to comply with the particulate regulations set out in Chapter AP-3 of the Regulations of the Ohio Environmental Protection Agency, which are a part of the approved State Implementation Plan for Ohio. The Director recognizes that the record in this case demonstrates that compliance by July 1, 1975, is physically impossible in light of the time required for design, construction, and installation of the necessary control equipment. The Clean Air Act Amendments of 1970, as implemented by the Administrator of the U.S. EPA provide for two alternative ways of dealing with this problem:

(1) Section 110(f) of the Clean Air Act provides for extensions of up to one year beyond the final

SIP compliance date for any source or class of sources upon request by the Governor of Ohio in appropriate circumstances. The Federal regulations governing the application of this Section require a Federal hearing on the appropriateness of this extension, and the extension itself is limited to not more than one year. Such extensions may be renewed, however.

(2) Section 113(a) allows the Administrator to issue orders requiring compliance with the requirements of State Implementation Plans, and such orders must "specify a time for compliance which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements." Section 113(a)(4). The Administrator has developed a practice of issuing consent orders under this section in circumstances where additional time is necessary to comply with the requirements of a State Implementation Plan.

Whether a State official may exercise similar latitude in issuing enforcement orders after a hearing on the record has been questioned in light of the language of the regulations promulgated by the Administrator in 39 Fed. Reg. 34533 (September 26, 1974), which provides in part as follows:

Enabling authority relating to the issuance of enforcement orders, variances, or other state-initiated measures designed to defer compliance with a plan requirement which is necessary for attainment of a national standard shall specifically provide for consistency with the following requirements.

(1) Except as provided in paragraph (g)(2) [referring to Section 110(f) procedures] of this section compliance may not be deferred beyond the ap-

plicable attainment date specified in Part 52 of this chapter. [i.e., the attainment dates established in the State Implementation Plan.]

Since the orders being issued in this case grow out of a record adjudicative proceeding requested by the permit applicants to challenge schedules initiated by the Director, it is the Director's conclusion that the orders below are not "state-initiated," and therefore fall outside the scope of the September 26, 1974, Federal Register requirements. In any case, the Director has consulted with U.S. EPA on the availability and appropriateness of Consent Orders in these circumstances, and he will formally request the issuance by U.S. EPA of Consent Orders under Section 113(a) embodying the requirements of the attached orders.

ORDER

Pursuant to Chapters 119 and 3704(S) of the Ohio Revised Code the Director makes the following orders:

(1) For the reasons stated in the Hearing Examiners' Report, the ruling of the Hearing Panel on the status of the Public Utilities Commission of Ohio as a party to this proceeding is hereby affirmed.

(2) All sources currently in compliance with the requirements governing particulates of Chapter AP-3 of the Regulations of the Ohio Environmental Protection Agency, which are a part of the approved Ohio Implementation Plan, are hereby issued the attached Permits to Operate, subject to the conditions specified therein.

(3) All sources which pertain to the entities listed below and which are not issued Permits to Operate under (2) above are hereby ordered to take the following steps by the dates indicated:

(A) By April 15, 1975, submit a program and schedule for compliance with the particulate regulations of Chapter AP-3 that demonstrates compliance as quickly as possible and before April 15, 1977.

(B) By June 15, 1975, submit signed contracts for the purchase and delivery as quickly as possible of all necessary control equipment for those sources needing control equipment under the programs and schedules submitted under the requirement of paragraph (2) above.

(C) By April 15, 1977, attain final compliance with all particulate regulations of Chapter AP-3 of the Regulations of the Ohio Environmental Protection Agency.

Buckeye Power—
Cardinal

Cincinnati Gas & Electric—
Miami Fort
W. C. Beckjord

Cleveland Electric Illuminating—
Lake Shore
Ashtabula
Avon Lake
Eastlake

Columbus and Southern Ohio—
Conesville
Poston
Picway (Unit #9)

Dayton Power and Light—
Tait

Ohio Edison—
Gorge
Burger
Toronto
Sammis
Niles
Edgewater

Ohio Power—
Muskingum
Cardinal

Ohio Valley Electric—
Kyger Creek

Toledo Edison—
Bay Shore
Acme

City of Cleveland
City of Painesville

(4) The sources listed below may submit phase out programs as an alternative to compliance with Order (3) above. If phase out is not chosen, the terms of Order (3) apply. All phase out schedules must be submitted by April 15, 1975. Schedules will provide for necessary approvals from the Public Utilities Commission of Ohio by April 15, 1976. Phase out must be accomplished by April 15, 1977.

Columbus and Southern Ohio Electric—
Picway (Units 7 & 8)

East Palestine Light and Power

Ohio Edison—
Beech Street
Rockaway

North Avenue
Mad River
Norwalk

Ohio Power—
Woodcock
Philo
Tidd

Toledo Edison—
Acme

(5) The Dover Municipal Power Plant shall submit particulate control program or evidence of purchase of standby power by April 15, 1975. If a particulate control program is selected, this facility shall be subject to the conditions of Order (3) above.

/s/ IRA L. WHITMAN — December 12, 1974
Ira L. Whitman — Date
Director

OhioEPA

State of Ohio Environmental Protection Agency
John J. Gilligan, Governor
Dr. Ira L. Whitman, Director

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance DEC 13 1974

Application Number 1318000245 B007

Effective Date DEC 13 1974

Permit Fee $35

This document constitutes issuance to: THE CLEV. ELEC. ILLUM. CO. LAKE SHORE PLANT
6800 South Marginal Dr.
Cleveland, Ohio 44101

of a permit to operate:
General Motors MU 40 Boiler
Diesel No. 1

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See Chapter EP-30 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until DEC 13 1977. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

1725

Ira L Whitman
Ira L. Whitman
Director

AP-PS-202
4-19-74

OhioEPA

State of Ohio Environmental Protection Agency
John J. Gilligan, Governor
Dr. Ira L. Whitman, Director

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance DEC 13 1974

Application Number 1318000245 B008

Effective Date DEC 13 1974

Permit Fee $35

This document constitutes issuance to: THE CLEV. ELEC. ILLUM. CO. LAKE SHORE PLANT
6800 South Marginal Drive
Cleveland, Ohio 44101

of a permit to operate:
General Motors MU 40 Boiler
Diesel No. 2

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See Chapter EP-30 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until DEC 13 1977. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

1723

Ira L Whitman
Ira L. Whitman
Director

AP-PS-202
4-19-74

OhioEPA

State of Ohio Environmental Protection Agency
John J. Gilligan, Governor
Dr. Ira L. Whitman, Director

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance DEC 13 1974

Application Number 1318000245 T002

Effective Date DEC 13 1974

Permit Fee $50

This document constitutes issuance to: THE CLEV. ELEC. ILLUM. CO. LAKE SHORE PLANT
6800 Marginal Drive
Cleveland, Ohio 44101

of a permit to operate:
Fuel Oil Storage 5,000,000 Gallon
Tank No. 2

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See Chapter EP-30 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until DEC 13 1977. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ira L. Whitman

Ira L. Whitman
Director

1720

AP-PS-202

OhioEPA

State of Ohio Environmental Protection Agency
John J. Gilligan, Governor
Dr. Ira L. Whitman, Director

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance DEC 13 1974

Application Number 1318000245 T001

Effective Date DEC 13 1974

Permit Fee $50

This document constitutes issuance to: THE CLEV. ELEC. ILLUM. CO. LAKE SHORE PLANT
6800 Marginal Drive
Cleveland, Ohio 44101

of a permit to operate:
Fuel Oil Storage 5,000,000 Gallon
Tank No. 1

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See Chapter EP-30 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until DEC 13 1977. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ira L. Whitman

Whitman

1721

AP-PS-202
4-19-74

APPENDIX F

Findings of Fact and Conclusions of Law of the Hearing Panel of the Ohio Environmental Protection Agency

FINDINGS OF FACT

GENERAL CASE

1. Applicants filed applications for variances or operating permits which were acted upon by the Director in May, 1973.
2. Requests for adjudication hearings were filed to challenge these actions. Four citizen objectors were also parties to certain cases.
3. The consolidated hearing in this matter commenced on March 4, 1974.
4. Ohio EPA's previous ambient air quality standards for sulfur dioxide and particulate matter were equivalent to the Federal secondary ambient air quality standards for those pollutants as published in the April 30, 1971 Federal Register.
5. The Federal secondary annual average and maximum 24 hour ambient air quality standards for sulfur dioxide were revoked by USEPA on September 14, 1973 because insufficient support was found in available data to require their retention in order to protect the public welfare.
6. On January 21, 1974 Ohio EPA adopted new ambient air quality standards for sulfur dioxide which included the annual average and maximum 24 hour secondary standards previously revoked by USEPA.

7. Epidemiological and toxicological studies demonstrate that sulfur dioxide and particulate matter can produce adverse health effects over a wide range of concentrations.
8. Sulfur dioxide effects upon vegetation are minor compared to effects from other natural causes. Adverse effects are produced by short-term fumigations for periods less than 24 hours.
9. Experts agree that the present Federal primary ambient annual average and 24 hour standards for sulfur dioxide and particulate matter are adequate to protect public health.
10. Ohio's present ambient annual average and 24 hour standards for sulfur dioxide and particulate matter are too stringent and their attainment is not necessary to protect public health.
11. Utilization of a "worst region" approach for classification of geographic areas of the state for purposes of emission control is overly simplistic and produces unnecessary overkill.
12. Utilization of a proportional reduction or "rollback" technique to develop emission limitations ignores significant factors affecting the relationship between levels of emissions and ambient concentrations thereby resulting in unnecessary overkill.
13. Utilization of diffusion modeling buttressed by ambient monitoring data to develop emission limitations permits control of emissions where necessary to produce the desired air quality.
14. Ambient monitoring data gathered by local air pollution control agencies during 1973 demonstrates no need

for control of sulfur dioxide emissions in many parts of the State.

15. The availability of flue gas desulfurization as an SO_2 control method which can be employed by the Ohio electric utilities must be shown by an adequate demonstration of an FGD system.

16. An adequate demonstration of an FGD system is the reasonably continuous operation of such system for period of one year on a boiler of approximately 100 mw.

17. The furnace injection, lime/limestone scrubbing, catalytic oxidation, magnesium oxide, Wellman-Lord FGD systems have not been so demonstrated.

18. Full scale demonstrations of the Chemico lime scrubbing system at Bruce Mansfield and the Wellman-Lord scrubbing system at NIPSCO are scheduled to commence in early 1975.

19. Limestone of "near high calcium" quality, having a chemical makeup of at least 90% calcium carbonate, less than 1% magnesium oxide, and less than 1% insolubles in hydrochloric acid, is the most suitable grade for use in limestone based flue gas desulfurization processes, with four million tons required per year for power plants in Ohio.

20. Although there are significant deposits of limestone in Ohio and neighboring states, factors such as chemical inconsistency, accessibility, competition from other users, necessary lead time for production, and zoning and reclamation laws influence the quantity of the necessary grade of stone available for flue gas scrubbing.

21. Limestone base price will be as much as $5.75 per ton, with transportation rates being in the range of .25¢ per ton/mile to 10¢ per ton/mile.

22. Limestone meeting the specifications for use in flue gas scrubbing processes is not available in sufficient quantities.

23. The installation of an individual FGD system would require a period of three and a half years for the completion of all engineering and construction, and the commencement of commercial operation.

24. Potential FGD vendor capacity and anticipated FGD demand preclude the installation of FGD systems by the Ohio electric utilities prior to July, 1978.

25. The operation of certain FGD systems produces a waste sludge which must be disposed of in an environmentally acceptable manner.

26. The disposal of untreated FGD scrubber sludge cannot be accomplished in an environmentally acceptable manner.

27. Chemical fixation of industrial sludge has been demonstrated to be an available, feasible technology, which is translatable to FGD scrubber sludge applications.

28. Chemical fixation of FGD scrubber sludge renders such sludge suitable for environmentally acceptable disposal.

29. A capital investment of greater than $60.00 per kw for FGD installation, including the purchase of limestone and scrubber sludge disposal when necessary, is economically unreasonable unless counterbalanced by significant adverse effects from emissions.

30. Tall stacks, taking into account the effective stack height, can be designed to permit dispersion and dilu-

tion of SO_2 emissions to meet required ambient air concentrations under most conditions.

31. Ground level ambient SO_2 concentrations are affected more by emission sources having short stacks than by sources emitting through chimneys having large effective stack height.

32. Tall stacks generally can be effectively designed to account for adverse topographical and meteorological conditions.

33. Tall stacks, in themselves, are not adequate as a control device for particulate emissions.

34. Tall stacks have not been shown to cause adverse ambient SO_2 concentrations at long distances from the source.

35. Supplementary control systems, including load switching and/or use of low sulfur fuel, can be effectively used in conjunction with tall stacks to control ambient SO_2 concentrations during short-term adverse meteorological conditions.

36. Ambient air monitoring and meteorological prediction can be effectively used to initiate use of a supplementary control system.

37. Low sulfur natural gas is not available for use by power plant boilers because of scarcity of supply and priority allocations.

38. Low sulfur fuel oil is not available for use in power plant boilers because of scarcity of supply, lack of adequate transportation facilities, and "higher priority" usage.

39. Low sulfur coals, either from the Appalachian area or from the western fields, are not generally available

for power plant operations because of increased demands, lack of mine capacity, boiler reliability in usage of such fuel, lack of transport facilities, increased cost, contractual difficulties, and economic consequences to Ohio coal and related industries.

40. Coal preparation techniques can be utilized to remove an approximate average of 30% of the sulfur content of Ohio-produced coals.

41. There is no conclusive evidence in the record regarding the health effects of secondary pollutants like sulfates.

42. There is no conclusive evidence in the record regarding the ratio for conversion of sulfur dioxide to sulfates

43. The Administrator of USEPA has not yet promulgated regulations describing a methodology for quantifying the concept of "significant deterioration" of existing air quality.

FINDINGS OF FACT

INDIVIDUAL CASES

1. Ambient monitoring data collected by local air pollution control agencies and evidence adduced herein regarding the impact of an individual plant's SO_2 emissions upon ambient concentrations demonstrates that there is no need for control of SO_2 emissions at the following generating stations:

Cleveland Electric Illuminating
Lakeshore
Eastlake
Avon Lake

Cincinnati Gas and Electric
- W. C. Beckjord
- Miami Fort
- West End

Dayton Power and Light
- Frank M. Tait
- Third Street

Toledo Edison
- Acme
- Bay Shore
- Water Street

Ohio Edison
- Burger
- Edgewater
- Gorge
- Beech Street
- Mad River
- Toronto
- Rockaway
- North Avenue

Ohio Power
- Tidd
- Cardinal

Buckeye Power
- Cardinal

City of Cleveland
- Lake Road

City of Painesville

2. Ambient monitoring data collected by applicants or predictive modeling relating an individual plant's SO_2 emissions to predicted or actual SO_2 concentrations

in the area additionally demonstrates that there is no need for installation of SO_2 emissions control systems at the following generating stations:

Cleveland Electric Illuminating
- Ashtabula

Columbus and Southern Ohio
- Conesville
- Picway
- Poston

3. The combined costs for installation of FGD systems and sludge disposal facilities at the following generating stations are unreasonable unless counterbalanced by significant adverse effects from SO_2 emissions:

Cleveland Electric Illuminating
- Lakeshore
- Eastlake
- Ashtabula
- Avon Lake

Columbus and Southern Ohio
- Conesville
- Poston
- Picway

Cincinnati Gas and Electric
- W. C. Beckjord
- Miami Fort

Dayton Power and Light
- Frank M. Tait

Toledo Edison
- Acme
- Bay Shore

Ohio Edison
- Sammis
- Burger
- Toronto
- Edgewater
- Gorge
- Mad River
- Niles

Ohio Power
- Woodcock
- Muskingum
- Cardinal

Buckeye Power
- Cardinal

City of East Palestine

City of Dover

4. Lack of available space for installation of FGD systems and/or sludge disposal facilities renders a requirement for their installation unreasonable at the following generating stations unless counterbalanced by significant adverse effects from SO_2 emissions:

Cleveland Electric Illuminating
- Lakeshore
- Eastlake

Cincinnati Gas and Electric
- W. C. Beckjord
- Miami Fort

Dayton Power and Light
- Frank M. Tait

Toledo Edison
- Acme
- Bay Shore
- Water Street

Ohio Power
- Cardinal

Buckeye Power
- Cardinal

City of East Palestine

City of Dover

5. It is technically feasible to insure that sulfur content of coal used does not exceed 3% at the following generating stations:

Cleveland Electric Illuminating
- Ashtabula
- Avon Lake

Columbus and Southern Ohio
- Picway

Cincinnati Gas and Electric
- Miami Fort

Dayton Power and Light
- Frank M. Tait

Toledo Edison
- Acme
- Bay Shore

Ohio Edison
- Edgewater
- Gorge
- Beech Street

Ohio Power
Tidd

Ohio Valley Electric
Kyger Creek

6. Imposition of a requirement for new or upgraded particulate control equipment is unreasonable for the following generating stations due to prohibitive costs or planned phase out of operating equipment:

Columbus and Southern Ohio
Picway (Units 7 and 8)

Dayton Power and Light
Third Street

Ohio Edison
Norwalk
Mad River
Beech Street
North Avenue
Rockaway

Ohio Power
Woodcock
Philo
Tidd

City of East Palestine

City of Dover

CONCLUSIONS OF LAW

1. Applicants bear the burden of proof with regard to following issues: technical feasibility and economic reasonableness of FGD systems, adequacy of limestone supplies, ability to dispose of scrubber sludge, availability of low sulfur fuel, reasonableness of ambient standards and emission limitations.

2. Ohio EPA bears the burden of proof with regard to the following issues: adverse effects of secondary pollutants, relationship of use of tall stacks to formation of secondary pollutants and significant deterioration of air quality in adjoining areas.

3. In determining the reasonableness or legality of a regulation as it applies to a particular set of facts or circumstances pursuant to ORC 119.11 it is proper to consider evidence regarding the appropriateness of the regulation in light of the objectives it seeks to attain.

4. Ohio's ambient air quality standards are intended to achieve the goal of protecting human health and welfare from the adverse effects of pollutants.

5. Ohio's emission standards are intended to achieve the goal of limiting emissions to such a degree that, considering topography, prevailing wind directions, duration and frequency of the presence of the pollutants in the ambient air and other relevant factors, the required ambient levels are achieved.

6. The Federal government has preempted the area of setting primary ambient air quality standards and Ohio may not at this time adopt less stringent ambient standards.

7. Ohio's present ambient annual average and maximum 24 hour standards for sulfur dioxide and particulate matter place an unreasonable burden of compliance upon applicants herein.

8. Ohio's present ambient 3 hour standard for sulfur dioxide was not lawfully enacted and it must be considered a nullity insofar as these proceedings are concerned.

9. Ohio's present priority classifications for sulfur dioxide and particulate matter are not based upon ambient data or sophisticated modeling and place an unreaonable burden of compliance upon applicants herein.

10. Ohio's present emission limitations for sulfur dioxide particulate matter and nitrogen oxides are more stringent than necessary to attain the appropriate ambient levels and they place an unreasonable burden of compliance upon applicants herein.

11. Ohio EPA may not justify requiring compliance with unreasonable regulations by reference to portions of the Clean Air Act requiring promulgation of these regulations within very brief time periods.

12. The term "emission limitation", as used in Section 110 of the Clean Air Act, means a limitation upon emissions which exceed that level of emissions released at the maximum effective stack height when considering the worst possible effects of meteorology and topography as well as maximum content in fuel of sulfur or other pollutants which will not prevent attainment of the appropriate air quality standard.

13. Ohio EPA may develop control strategies for applicants herein which take into account stack height, meteorology, topography and other relevant factors and thereby comply with the requirement of Section 110 of the Clean Air Act.

14. The direct and indirect economic costs of compliance with emission regulations must be balanced against the benefits to be obtained from compliance in order to determine if it is reasonable to require compliance.

15. Flue gas desulfurization is not a presently available, technologically feasible method of SO_2 control which may be employed by the Ohio electric utilities.

16. Chemical fixation of FGD scrubber sludge is a presently available, technologically feasible method of FGD scrubber sludge treatment which may be employed by the Ohio electric utilities.

17. Tall stacks, either alone or in combination with supplementary control systems, are a technologically feasible and economically reasonable means of meeting ambient air quality standards for sulfur dioxide.

18. Overall conversion to low sulfur fuels by the electric utilities is not technologically feasible or economically reasonable.

19. Regulation EP-10-06 (AP-2-06) is unclear and does not adequately address potential air pollution control equipment malfunctions.

20. The date upon which the Administrator of USEPA lawfully approves a State Implementation Plan is the starting point for computation of the three-year compliance period which the Clean Air Act provides for compliance with primary ambient air quality standards.

21. Ohio's Implementation Plan, minus a sulfur oxide control strategy, was lawfully approved by the Administrator for the first time on April 15, 1974.

22. The ultimate date for compliance with Ohio's emission limitations relative to particulate matter is April 15, 1977.

23. The evidence in this record regarding the formation and health effects of secondary pollutants and the parameters of "significant deterioration" of air quality does not provide a probative basis for approval or rejection of any particular method for emission limitation.

24. The criteria for issuance of orders pursuant to ORC Section 3704.03(S) to prohibit or abate unlawful emissions embody the criteria for issuance of variances set forth in ORC Section 3704.03(H).

25. Issuance of an order pursuant to ORC Section 3704.03 (S) to require applicants herein to abate emissions, where necessary, by a date certain is a proper method for resolving the controversies herein.

26. Regulation AP-7-06 limiting emissions of nitrogen oxides is presently unnecessary.

RECOMMENDATIONS

1. The Hearing Panel recommends that the Director adopt the present Federal primary annual average and twenty-four hour maximum ambient air quality standards for sulfur dioxide and particulate matter and repeal Ohio's existing ambient standards for those pollutants.

2. The Hearing Panel recommends that the Director adopt a county by county classification and realistic emission limitations upon emissions of sulfur dioxide and particulate matter based upon accurate ambient data for each county and the most sophisticated diffusion modeling techniques presently available. Existing priority classifications and emission regulations for these pollutants should be repealed.

3. The Hearing Panel recommends that Regulation AP-7-06 be repealed.

4. The Hearing Panel recommends that the Director repeal Regulation EP-10-06 and adopt a new regulation clearly expressing the means for attaining the objectives which the present regulation seeks to attain.

5. Recommendations 1-4 should be implemented through utilization of ORC Chapter 119 rule-making procedures.

6. The Hearing Panel recommends that no compliance orders be issued as a result of this proceeding until Recommendations 1-4 have been implemented.

7. In the event that the Director should determine that installation of FGD systems appears necessary at any plant involved herein, the Hearing Panel recommends that the Director obtain information regarding the Bruce Mansfield and NIPSCO scrubber systems in 1976 before issuing the draft order attached hereto.

8. In the event that the Director determines that particulate control measures must be implemented now, the Hearing Panel recommends issuance of the draft order attached hereto.

/s/ HARVEY A. ROSENZWEIG
Harvey A. Rosenzweig
Chief Hearing Examiner

/s/ PATRICIA L. BROWN
Patricia L. Brown
Hearing Examiner

/s/ ALAN L. LAPP
Alan L. Lapp
Hearing Examiner

APPENDIX G

Pertinent Constitutional and Statutory Provisions

U.S. Constitution, Amendment XIV, Section 1:

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

42 U.S.C. §7410(a)(1):

(a)(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within nine months after the promulgation of a national primary ambient air quality standard (or any revision thereof) under Section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within nine months after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

Ohio Revised Code, Sections 119.03

In the adoption, amendment, or rescission of any rule, an agency shall comply with the following procedure:

(A) Reasonable public notice shall be given at least thirty days prior to the date set for a hearing, in the manner and form and for the length of time the agency determines and shall include:

(1) A statement of the agency's intention to consider adopting, amending, or rescinding a rule:

(2) A synopsis of the proposed rule, amendment, or rule to be rescinded or a general statement of the subject matter to which the proposed rule, amendment, or rescission relates;

(3) The date, time, and place of a hearing on the proposed action. In addition to public notice, the agency may give whatever other notice it considers necessary. Each agency shall adopt a rule setting forth in detail the method that the agency shall follow in giving public notice as to the adoption, amendment, or rescission of rules.

(B) The full text of the proposed rule, amendment, or rule to be rescinded shall be filed with the secretary of state, the director of the legislative reference bureau, and the clerk of the senate, legislative clerk of the house of representatives at least thirty days prior to the date set for the hearing and shall be available at the office of the agency in printed or other legible form without charge to any person affected by the proposal. Failure to furnish the text to any person requesting it shall not invalidate any action of the agency in connection therewith.

(C) On the date and at the time and place designated in the notice, the agency shall conduct a public hearing at which any person affected by the proposed action of the

agency may appear and be heard in person, by his attorney, or both, may present his position, arguments, or contentions, orally or in writing, offer and examine witnesses, and present evidence tending to show that the proposed rule, amendment, or rescission, if adopted or effectuated, will be unreasonable or unlawful.

At the hearing, a stenographic record of the testimony and rulings on the admissibility shall be made at the expense of the agency.

In any hearing under this section, the agency may administer oaths or affirmations.

The agency shall pass upon the admissibility of evidence, but the person affected may at the time make objection to the ruling of the agency, and if the agency refuses to admit evidence, the person offering the evidence shall make a proffer of the evidence, and the proffer shall be made a part of the record of the hearing.

(D) After complying with divisions (A), (B), and (C) of this section, the agency may issue an order adopting the proposed rule or the proposed amendment or rescission of the rule, consistent with the public notice and at that time shall designate the effective date of the rule, amendment, or rescission, which shall not be earlier than the tenth day after the rule, amendment, or rescission has been filed in its final form as provided in section 119.04 of the Revised Code. . . .

Ohio Revised Code, Section 119.09:

For the purpose of conducting any adjudication hearing required by sections 119.01 to 119.13 inclusive of the Revised Code, the agency may require the attendance of such witnesses and the production of such books, records, and papers as it desires, and it may take the depositions

of witnesses residing within or without the state in the same manner as is prescribed by law for the taking of depositions in civil actions in the court of common pleas, and for that purpose the agency may, and upon the request of any party receiving notice of said hearing as required by section 119.07 of the Revised Code, shall, issue a subpoena for any witness or a subpoena duces tecum to compel the production of any books, records, or papers, directed to the sheriff of the county where such witness resides or is found, which shall be served and returned in the same manner as a subpoena in a criminal case is served and returned. . . .

At any adjudication hearing required by sections 119.01 to 119.13, inclusive, of the Revised Code, the record of which may be the basis of an appeal to court, a stenographic record of the testimony and other evidence submitted shall be taken at the expense of the agency. Such record shall include all of the testimony and other evidence, and rulings on the admissibility thereof presented at the hearing. . . .

In any adjudication hearing required by sections 119.01 to 119.13, inclusive, of the Revised Code, the agency may call any party to testify under oath as upon cross-examination.

The agency, or any one delegated by it to conduct an adjudication hearing, may administer oaths or affirmations.

In any adjudication hearing required by sections 119.01 to 119.13, inclusive, of the Revised Code, the agency may appoint a referee or examiner to conduct said hearing. He shall have the same powers and authority in conducting said hearing as granted to the agency. Such referee or examiner shall have been admitted to the practice of law

in the state and be possessed of such additional qualifications as the agency requires. The referee or examiner shall submit to the agency a written report setting forth his findings of fact and conclusions of law and a recommendation of the action to be taken by the agency. . . . The recommendation of the referee or examiner may be approved, modified, or disapproved by the agency, and the order of the agency based on such report, recommendation, transcript of testimony and evidence, or objections of the parties, and additional testimony and evidence shall have the same effect as if such hearing had been conducted by the agency. No such recommendation shall be final until confirmed and approved by the agency as indicated by the order entered on its record of proceedings, and if the agency modifies or disapproves the recommendations of the referee or examiner it shall include in the record of its proceedings the reasons for such modification or disapproval. . .

Ohio Revised Code, Sections 3704.03(D), (E), (H):

The director of environmental protection may:

(D) Adopt, modify, and repeal regulations for the prevention, control, and abatement of air pollution from all sources throughout the state, prescribing ambient air quality standards for the state as a whole or for various areas of the state. In adopting, modifying, or repealing, such regulations the director shall hear and give consideration to evidence relating to:

(1) The character and degree of any injury to human health or welfare, plant or animal life, or property, or any unreasonable interference with the comfortable enjoyment of life or property as the result of air pollution;

(2) Conditions calculated to result from compliance with such standards and their relation to benefits to the people of the state to be derived from such compliance;

(3) The quantity and characteristics of air contaminants and the frequency and duration of their presence in the ambient air;

(4) Topography, prevailing wind directions and velocities, physical conditions, and other factors which may combine to affect air pollution.

(E) Adopt, modify, and repeal regulations for the prevention, control, and abatement of air pollution, prescribing for the state as a whole or for various areas of the state emission standards for air contaminants, and other necessary regulations for the purpose of achieving and maintaining compliance with ambient air quality standards. In adopting, modifying, or repealing such regulations the director shall hear and give consideration to evidence relating to:

(1) Conditions calculated to result from compliance with such regulations and their relation to benefits to the people of the state to be derived from such compliance;

(2) The quantity and characteristics of air contaminants, the frequency and duration of their presence in the ambient air, and the dispersion and dilution of such contaminants;

(3) Topography, prevailing wind directions and velocities, physical conditions, and other factors which may combine to affect air pollution.

(H) Issue, revoke, modify, or deny variances from his regulations, including variances for emissions in excess of the applicable emission standards. In issuing, revoking, modifying, or denying such variances the director shall hear and give consideration to evidence that:

(1) Compliance with such standards and other regulations is impractical because of conditions beyond the control of the applicant.

(2) Compliance with such standards and other regulations would be technically infeasible or economically unreasonable.

(3) The emissions of the applicant for which a variance is requested have little effect on ambient air quality and do not endanger or threaten to endanger human health, due to topography, direction and velocity of prevailing winds, height of emission source, or other factors.

(4) Compliance with the standards or other regulations from which variance is sought would produce serious hardship without equal or greater benefit to the public.

(5) The emissions of the applicant from which a variance is requested were in conformity with the emission standards in force at the time a permit was issued to the applicant under division (F) of this section.

In issuing such variances, the director may also order the person to whom the permit is issued to furnish plans and specifications and such other information and data as the director may require, and to proceed to take such action within such time as the director may determine to be appropriate and reasonable to prevent, control, or abate his existing emissions of air contaminants. The director shall specify in such variances that the variance is conditioned upon the right of his authorized representatives to enter upon the premises of the person to whom the variance has been issued, at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of determining compliance with this chapter, the rules adopted thereunder, and the

conditions of any permit, variance, or order issued thereunder.

The director may hold a public hearing on an application for a variance or renewal thereof, at a location in the county where the variance is sought. The director shall give not less than twenty days' notice of the hearing to the applicant by certified mail and cause at least one publication of notice in a newspaper with general circulation in the county where the variance is sought. The director shall keep available for public inspection at the principal office of the environmental protection agency a current schedule of pending variance hearings. The director shall make a complete stenographic record of testimony and other evidence submitted at the hearing. Within ten days after the hearing the director shall make a written determination to issue, renew, or deny the variance, and shall enter his determination and the basis therefor into the record of the hearing. The director shall issue, renew, or deny an application for a variance or renewal thereof within six months of the date upon which the director receives a complete application with all pertinent information and data required by the director.

No variance shall be issued, revoked, modified, or denied until the director has considered the relative interests of the applicant, other persons and property affected by the discharge, and the general public. Any variance granted pursuant to this section shall be for a period specified by the director and may be renewed from time to time on such terms and for such periods, not to exceed one year each, as the director determines to be appropriate. No application shall be denied or variance revoked or modified without a written order stating the findings upon which denial, revocation, or modification is based. A copy of the order shall be sent to the applicant or variance holder by certified mail.

Ohio Revised Code, Section 3745.04:

As used in this section, "any person" means any individual, any partnership, corporation, association, or other legal entity, or any political subdivision, instrumentality, or agency of a state, whether or not the individual or legal entity is an applicant for or holder of a license, permit, or variance from the environmental protection agency.

As used in this section, "action" or "act" includes the adoption, modification, or repeal of a regulation or standard, the issuance, modification, or revocation of any lawful order other than an emergency order, and the issuance, denial, modification, or revocation of a license, permit, lease, variance, or certificate, or the approval or disapproval of plans and specifications pursuant to law or regulation thereunder.

Any person who was a party to a proceeding before the director may participate in an appeal to the environmental board of review for an order vacating or modifying the action of the director of environmental protection or local board of health, or ordering the director or board of health to perform an act. The environmental board of review has exclusive original jurisdiction over any matter which may, under this section, be brought before it. . .

Ohio Revised Code, Section 3745.06:

Any party adversely affected by an order of the environmental board of review may appeal to the court of appeals of Franklin county, or, if the appeal arises from an alleged violation of a law or regulation, to the court of appeals of the district in which the violation was alleged to have occurred. Any party desiring to so appeal shall file with the board a notice of appeal designating the

order appealed from. A copy of such notice shall also be filed by the appellant with the court, and a copy shall be sent by certified mail to the director of environmental protection. Such notices shall be filed and mailed within thirty days after the date upon which appellant received notice from the board by certified mail of the making of the order appealed from. No appeal bond shall be required to make an appeal effective. . .

Ohio Administrative Code, 3745-17-02:

EP-11-02 (AP-3-02) Ambient air quality standards.

(A) Ambient air quality standards for suspended particulates, to be applicable throughout the area, shall be as follows:

(1) The maximum annual geometric mean concentration shall not exceed sixty (60) micrograms per cubic meter.

(2) The maximum twenty-four (24) hour concentration not to be exceeded more than once per year shall be one hundred and fifty (150) micrograms per cubic meter.

(B) Ambient air quality standards for sulfur dioxide applicable throughout the area shall be as follows:

(1) The maximum annual arithmetic mean concentration shall not exceed sixty (60) micrograms per cubic meter (0.02 parts per million by volume).

(2) The maximum twenty-four (24) hour concentration not to be exceeded more than once per year shall be two hundred and sixty (260) micrograms per cubic meter (0.10 parts per million by volume).

Ohio Administrative Code, 7345-17-10:

EP-11-10 (AP-3-11) Restriction on emission of particulate matter from fuel burning equipment.

(A) General provisions.

(1) This regulation applies to installations in which fuel is burned for the primary purpose of producing heat or power by indirect heat transfer. Fuels include those such as coal, coke, lignite, coke breeze, fuel oil, natural gas, process gas, and wood, but do not include refuse. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply. . .

Ohio Administrative Code, 3745-17-13:

EP-11-13 (AP-3-14) Restrictions on emission of sulfur dioxide from use of fuel.

(B) Emission limitations.

(1) No person shall cause, suffer, allow, or permit the emission of sulfur compounds caused by the combustion of fuel in fuel-burning equipment from any stack or chimney in excess of the quantity set forth in Figure III.

(2) All persons located within air control regions classified as Priority I Regions shall attain or exceed that degree of emission reduction specified by Curve P-1 by the effective date of this regulation.

(3) All persons located within air quality control regions classified as Priority II Regions shall attain or exceed that degree of emission reduction specified by Curve P-2 by the effective date of this regulation.

(4) All persons located within air quality control regions classified as Priority III Regions shall attain or exceed that degree of emission reduction specified by Curve P-3 by the effective date of this regulation.

(5) All persons located within air quality control regions classified as Priority II or III Regions shall attain or exceed, no later than July 1, 1975, that degree of emission reduction specified by Curve P-1.

Ohio Administrative Code, 3745-35-03:

EP-32-03 Variances.

(A) General Rule. No person shall cause, permit, or allow the operation or other use of any air contaminant source that emits any air pollutant in violation of any applicable law, unless a variance including an approved compliance schedule has been applied for and obtained from the Director for such source, pursuant to the provisions of this rule. . .

(2) Applications for variances shall be submitted to the Ohio EPA within six months of the effective date of these regulations for existing air contaminant sources not in compliance with applicable law on that date. Failure to file a timely application shall be cause for the Director to issue an order immediately prohibiting all emissions from the source. . .

(F) Terms and Conditions.

(1) An approved compliance schedule shall be incorporated into any variance granted, and shall be a term and condition thereof.

(2) Variances shall be effective for whatever period the Director deems appropriate, not to exceed one year. A variance may be renewed only when the Ohio EPA is satisfied that the source for which the variance was granted is making satisfactory progress toward achievement of the program specified in its compliance schedule. No variance to operate an air contaminant source is [sic] an air quality control region designated as Priority I, II or III, in violation of an emission standard applicable to such region and source, shall be effective after April 15, 1977, except as provided in the following sentence. No variance to operate an air contaminant source in an air quality control region designated as Priority II or Priority III in violation of AP-3-11(B)(4) or AP-3-12(B)(5) or AP-3-14(B)(5) shall be effective after July 1, 1978...